

# *B*IRDS of the *WILD*

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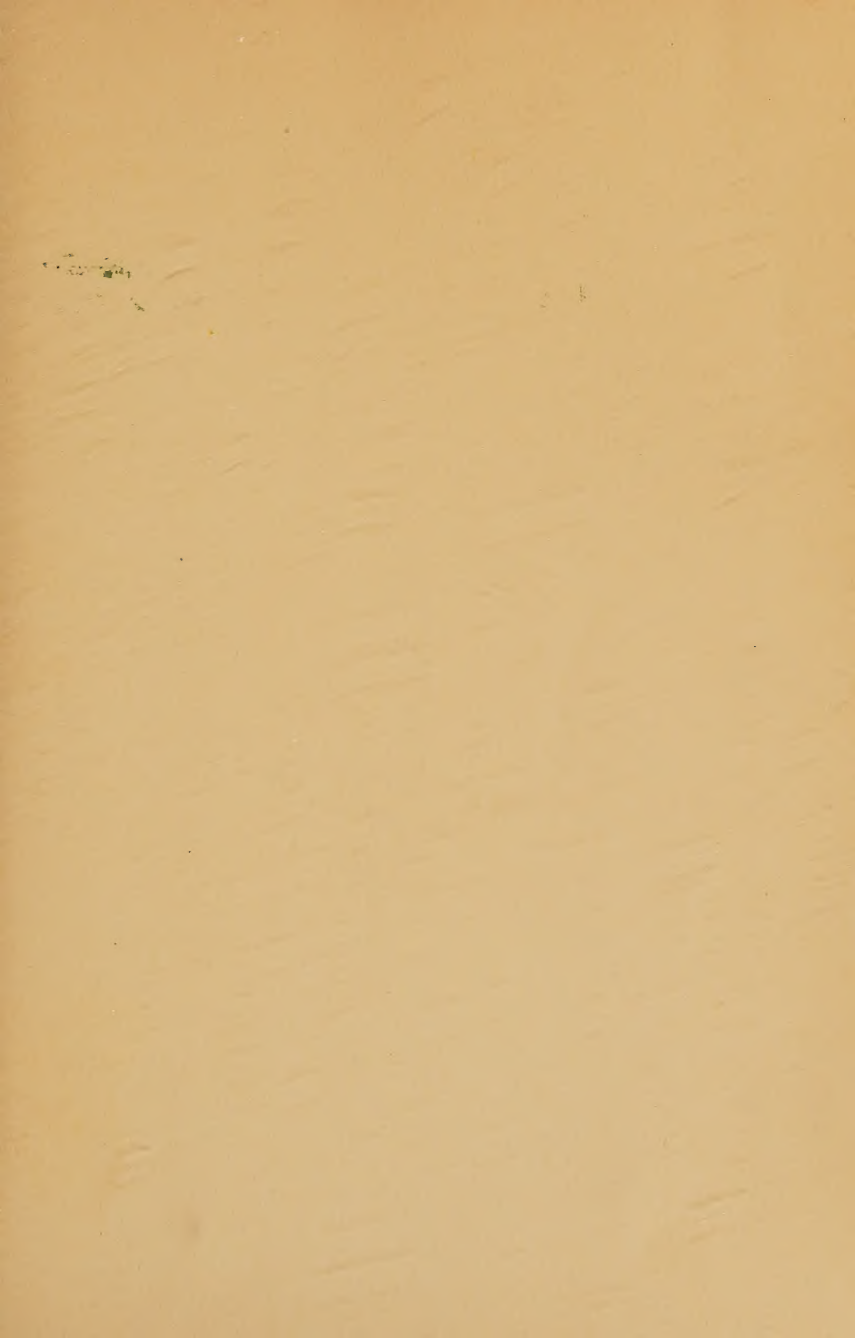
HOW TO MAKE YOUR  
HOME THEIR HOME

FRANK C. PELLETT



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Of the three essentials necessary to bring birds to your vicinity, the first and most important is suitable nesting sites; the others are an abundant supply of food and water and security from enemies

# BIRDS OF THE WILD

HOW TO MAKE YOUR HOME  
THEIR HOME

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*By*  
FRANK CHAPMAN PELLETT

AUTHOR OF "OUR BACKDOOR NEIGHBORS,"  
"AMERICAN HONEY PLANTS," ETC.

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*To my friend*

C. E. EHINGER

with whom I have spent many  
pleasant hours  
afield





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# BIRDS OF THE WILD

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## *Publishers Introduction*

WHEN it is considered that there are several score books on the subject of the birds of the U. S. A., the reader may think, perhaps not unjustly, that in bringing out a new book on the same subject we, as publishers, have infringed on that which has already been covered in so many different ways. And the publishers themselves might have harbored the same thought had it not been that, from their acquaintance with these books, each of which has its own value, it was found none covered birds of the wild in the manner in which this subject has been covered by the author, Frank Chapman Pellett, naturalist, close observer and one who, from his inherent love of birds, has watched their habits, encouraged them to take up their abode with him, and studied them closely for the past twenty years under circumstances and surroundings which fall to the lot of few writers.

"Birds of the Wild" deals exclusively with Mr. Pellett's own unremitting observations during all those years, and so what he writes is to be depended upon. The book is thorough; there are no surmises, no ventures, no guesses, nothing taken from what other authors have written.

"Birds of the Wild" is an enjoyable book, and we feel sure that every reader will be benefited by its perusal. If this volume serves to better the condition of the birds, and helps the reader to make his or her own home a home for the birds, even though circumstances may force the number to be limited, Mr. Pellett's writings will well have served their purpose.

An appropriate title for a book is oftentimes difficult to decide upon. In the present instance, a stiff competition among the staff of this office produced fully a hundred different titles; finally, the present title and subtitle were chosen as covering most closely the subject matter contained in this book, as well as making a distinct appeal to the reader.

A. T. D.

*New York, August, 1928*

## *Author's Preface*

THIS book has been written at odd moments during the greater part of a year. Consequently, some chapters have been written at every season. Birds were busy about their domestic duties and sang for me from the nest beside my window at the beginning; others sought food at my feeding station when snow was deep, before the task was done. The incidents mentioned occurred at different places, and the observations have extended over many years, for I have long loved the birds.

Some of the happenings were at my home in town, some at my little farm in Iowa, and some at my larger one in Nebraska. I am one often spoken of as land poor, because too great a portion of my resources is invested in land. However, I am rich in trees and birds, in flowers and vines, and in butterflies and bees.

Neither farm is a show place. I have cultivated the wild and the natural, and Nature has been encouraged to have her own way. Tangles of vines, clumps of wild flowers, and thickets of bushes are attractive to wild creatures of many kinds.

In the pages following, suggestions are given for making the most of any situation in attracting the birds. The illustrations, with the few exceptions noted in the text, are from my own photographs.

FRANK C. PELLETT

*Hamilton, Illinois, August, 1928*



## *Chapter I*

### My Investments in Living

PERHAPS it is well for the world of practical men that there are folks like me who are willing to invest something for the purpose of developing Nature for her own sake. The greater part of my limited resources is invested in farms. The satisfaction I receive from owning them and cultivating wild flowers and trees, birds and squirrels, butterflies and bees, outweighs anything which I could buy with the money returned in dividends on an investment of a similar amount.



Every attraction has been offered to the birds and some are found here seldom seen elsewhere in the region



At a time when wild flowers were on the verge of extinction, this area was set aside for them

For twenty years I have tried to attract the wild birds and establish the wild flowers at Tamakoche, my little farm near Atlantic, Iowa. There I lived for many happy years, and there some of my children were born. Seven acres are devoted entirely to the preservation of the wild life of the region. Every attraction has been offered to the birds, and some are to be found there which are seldom seen elsewhere in that vicinity. With no animals pastured in a woodland enclosure, conditions are ideal for Nature to assert herself and perpetuate the species native to the region in a relationship established in centuries long past.

At a time when the wild flowers were on the verge of extinction in a neighborhood where every acre of land is fertile and valuable, this small area was set aside for them. An endeavor was made to establish every desirable wild plant native to this environment. For twenty years Tamakoche has been devoted to this purpose, and although during a portion of this time the property has been leased to strangers, the object has steadily been kept in view. Some species of flowers have

greatly increased in numbers, and, at times, the entire area is a riot of bloom.

For the birds, suitable nesting sites have been offered, a liberal food supply has been provided and an attempt has been made to give them security from their enemies. Under these conditions the number has greatly increased with the years, and frequently a stranger arrives to take up residence.

I have just returned, after spending some happy hours looking over these possessions. Greatly to my joy, I found a mocking bird at Tama-koche. The arrival of the mocking birds is an event to which I have looked forward, although not very hopefully, for the entire twenty-year period. Cardinals came many years ago and have continued to reside there. My great hope is that the mocking birds may find the environment equally pleasant.

There is no financial profit to be derived from the singing of a mocking bird in my garden, but to me, the joy of hearing such a song in a neighborhood where mocking birds had never before sung, outweighs the profits to be acquired by trading in the marketplace.

Sunset Ranch, in southern Holt County, Nebraska, is in a very different region. On the flat prairie where coyotes howl, prairie chickens



Young prairie chickens at Sunset Ranch

boom, and wild ducks nest, ten acres of Pine trees have been planted. Ten years this project has been under way, and the time is too short to show great results. However, the first Pines planted are now 10 to 18 feet in height and offer seclusion to tree-loving birds. To my delight I found several species common to the woodlands already established there, and in another ten years I look forward to a typical list of mid-western birds. At the same time I hope to make conditions attractive to the prairie birds, so that they will remain in the vicinity as long as possible. The vanishing prairie hen and upland plover are doomed to disappear because of the persecution of hunters who have



At Sunset Ranch ten acres of Pine trees have been planted





The vanishing upland plover is doomed soon to disappear

no consideration except their own pleasure. The protection offered by a limited area is insufficient for their preservation. Unless organized action can be secured to set aside large areas in which they can breed in safety, they must shortly disappear, along with the passenger pigeon and others which have already fallen victims to the changing conditions.

Sunset Ranch consists of a square mile of open prairie. On its broad acres are to be found the usual prairie birds. Kildeer plovers run over the pastures and repeat their high pitched "kildeer, kildeer," with unending monotony. Burrowing owls rear their families in holes in the ground; night hawks lay their eggs on the bare earth and capture their prey in the air above, while yellow-headed blackbirds and bobolinks swing among the rushes in the ponds.

It is my ambition to create conditions which will attract the woodland birds and, at the same time, retain all the birds native to the region; to the end that a greater variety of birds may be found in the one neighborhood than are now to be seen in any similar area.

The present tendency to drain every wet area and boggy spot will soon make the neighborhood unattractive to many of the birds

which now nest here. Wild ducks, grebes, coots, and bitterns are not happy in dry meadows. I will enjoy them while I may, knowing full well that I am powerless to change the trend of the times. Nothing that I can do will prevent them from moving on from the vicinity of Sunset Ranch, as they did from western Iowa, as the marshes become dry and the turning of the sod changes wild meadows into cultivated fields.

All change is not progress. While many of the changes are inevitable, still we are losing much because of failure to appreciate the value of our wild life and to make provision for its perpetuation. The water birds formerly swarmed in countless numbers over the prairies of Illinois, but advancing civilization drove them on. A few years later they were compelled to abandon the wide prairies of Iowa. Now they have gone from much of the former breeding area in the Dakotas and Nebraska and are pushed farther and farther back in the Canadian West. Soon many species must disappear entirely for lack of suitable nesting places.

How simple it would have been to have set aside large areas of marsh land in each region as settlement advanced, when the land was of little value and permanent provision for wild life refuges might easily have been made.



Eggs of the nighthawk laid on the bare ground





**Pintail duck among the Cattails at Sunset Ranch**

As I watch the mother duck with her little brood on the pond at Sunset Ranch, I realize with regret that she will soon depart to return no more. My marshes are too small and too shallow to remain after the neighborhood has been drained. Perhaps I may be able to maintain a remnant of this prairie wild life for a few years after it would otherwise be gone. To do so is well worth while, if only for my own pleasure.

In the meantime, I find great joy in the arrival of the warbling vireo to nest in the trees I have planted. Robins, orchard orioles, flickers, red-headed woodpeckers, yellow warblers and yellow throats are common to Nebraska where there are trees, and they have been quick to appreciate my groves. Brown thrashers and rose-breasted grosbeaks have likewise come to add their songs to the general chorus. Kingbirds are among the most common birds of the plains region and it is only necessary for the settler to provide a single tree of sufficient size to bring them to the vicinity of his dwelling. Mourning doves are also plentiful, nesting on the ground in the absence of a better situation.

Now that my Pines are reaching some height, numerous doves' nests are to be found in the branches.

The yellow-billed cuckoo, shyest of birds, is already a permanent Summer resident; and bronze grackles add their harsh notes to the medley of bird song.

Any individual who owns a bit of land, no matter how small or how unfavorable the surroundings, can do something to bring birds to the neighborhood. The number and variety will be determined by circumstances beyond the control of the individual, but it is well worth while to bring even a single pair of birds to sing about one's dwelling. If enough people can be interested and suitable protection offered, surprising results can be obtained.



## *Chapter II*

### Invitations that Birds Accept

**I**T adds greatly to the joy of life to be awakened on a Spring morning by a chorus of bird songs. With the first streak of dawn, their music begins and continues until the day is well advanced. I can think of nothing money could buy which gives me as much joy as the wonderful ringing song of the wood thrush in early morning and again at twilight.

Although the Summer is well advanced and the brown thrasher no longer sings, I have had a delightful concert on the July morning on which this is written. The "wichity, wichity" of the yellow throat, the song of the wood thrush, and the whistle of the cardinal, the "zee-e-wee" of the wood pewee, the harsh notes of the jay, the scolding of a robin, and the song of a house wren have all combined to give me pleasure. This by no means completes the list of the bird notes I have heard this morning.

It is a bit surprising that so many folks who really are Nature lovers, overlook the opportunities to surround themselves with similar pleasures. Birds are quick to respond to the invitations of those who recognize their needs and take steps to supply them. Even though one lives on a small lot in town he can do something to make the place attractive to some kind of bird. Wherever trees, vines and flowers will grow, birds are likely to be found.

Three things are necessary to bring the birds to your vicinity: the first and most important is suitable nesting sites; an abundant food and water supply comes second; while security, with protection from enemies, is the third. It is depressing to note how few birds there are in many places. Nest-robbing children, gun-shooting men, unrestrained cats and lack of food and shelter, have combined to reduce them to the point of near extinction. It is refreshing to go from such a neighborhood to one where birds are sheltered and protected. The sight of bright colored birds flitting among the trees and the sound of their song cheers one greatly.



Robins, cardinals and singing sparrows all had nests in these vines, shown beside my house in town

### Providing Nesting Sites

The mere presence of trees and shrubs is sufficient to bring many of the common birds. Thick clumps of shrubs and vines offer hiding places where they can conduct their domestic affairs out of sight. A few birds ask only for a convenient crotch in which to place the nest, and apparently are not in the least concerned about how public the situation may be. The robin is a good example of this type. Wherever trees grow in the vicinity of one's home, the robin may be found. On the other hand, there are many shy birds which are only to be tempted by thickets where they can hide from the sight of all the world.

Trees, shrubs and vines serve the double purpose of providing nesting sites and yielding a food supply. Not only do the birds feed upon the fruits and seeds of many such, but the insects which are associated with them also largely enter into the diet.



Wherever trees, vines and flowers will grow, birds may be found



It may be set down as a safe rule that the greater the variety and the larger the number of trees, vines and shrubs present, the greater the number of birds which will be attracted to the neighborhood. Since it takes time for trees and shrubs to grow, some patience is required to establish a bird sanctuary in a neighborhood where these are lacking.

Those species which nest in cavities are easily pleased, and a little ingenuity will provide homes which attract them readily. In the March-April issue of "Bird Lore" for 1911 appears a description of the first known houses occupied by woodpeckers in America. These birds provide no nesting material, and, for many years, attempts to attract them to artificial homes were unsuccessful. The boxes, designed by the author of this book, supplied this lack by means of cork chips. Since the publication of that article, woodpeckers have been attracted to boxes as readily as other birds. These boxes are described in detail in another chapter.



Brown thrashers are especially fond of nesting in these Virginia Creeper and Moonseed vines, but other birds share them also



The yellow-billed cuckoo, shyest of birds, seeks the shelter of thickets

I have had several interesting tenants of my bird houses at different times. On one occasion a pair of great crested flycatchers occupied one. At another time sparrow hawks reared their family in a box in my front yard. Wrens, martins, bluebirds, etc., are everywhere known to come to such homes. Numerous screech owl families have occupied my boxes both Summer and Winter.

To bring such birds as the great crested flycatcher and the yellow-billed cuckoo adds much to the interest of one's surroundings. The cuckoo likes the privacy of dense thickets of shrubbery or evergreens where the fragile nest is sheltered from the weather by the thick overhanging branches. The flycatcher finds even greater protection by placing its nest within a natural cavity. Few instances have been reported where this bird occupied a box.

As already stated, when one plants the things which provide the kind of nesting sites demanded by many birds, he also provides the food supplies for numerous species. Many ornamental shrubs of dense growth yield a plentiful supply of berries which serves them well. The bush Honeysuckles are good examples.

### Providing Food for Birds

In selecting the varieties to plant, it is desirable to choose such a range of species as will provide food throughout the year. The Mulberry tree is a great favorite of the birds during its fruiting season. Large numbers of songsters may be seen among its branches when the berries are ripe. To list the species of birds which like Mulberries would look like a census of the feathered inhabitants of any garden.

The berry season, however, is short and birds continue to be hungry. For a Winter food supply, such vines as Bittersweet and such shrubs as Indian Currant, which retain their berries, should be planted plentifully. Elsewhere, lists of sources of food for the different seasons are suggested. As many different kinds should be planted as circumstances will permit. This not only provides a greater variety of food at all times, but it insures that something will be available, even though some may fail to set fruit.

Where Cherries, berries, etc., are grown for family use or for sale, the presence of large numbers of birds presents a disturbing feature. A few Cherry trees or a small berry patch will soon be stripped of fruit. I have largely solved this problem by planting other things which the birds like even better. When our early Cherries ripened the past Summer there was no other fruit. The birds took most of them. When the next ones came, the Mulberries were also ripe, and we have many Mulberry trees. The birds then flocked to the Mulberry trees and the Cherries were little noticed. Counter attractions must be offered to save the garden fruit. However, the birds are welcome to their proper share of the Cherries and berries in my garden. The service they have rendered in the destruction of insects has earned it, to say nothing of the pleasure they have given by their presence.

Wild Cherries, Choke Cherries, Mulberries and Elderberries are all easily grown, and here in the Middle-West, they provide very good counter attractions. Plenty of them should be grown along with the garden fruits. However, in large Cherry orchards or berry plantations, the depredation of the birds is less noticeable than in a small garden.

### Winter Attractions

Comparatively few birds remain for the Winter months in the northern states, and these are often hard pressed to find food in times of severe storm. Evergreen hedges, especially of Red Cedar, are very attractive to them. The dense branches furnish shelter from the winds and the Cedar berries an ever-ready food supply.

Thickets of shrubbery furnish ideal attractions for the seed-eating birds, like juncos and tree sparrows, which scratch happily among the fallen leaves in search of seeds. Quail like similar shelters and will readily accept your invitation if protected from hunters.

Most of the Winter birds will readily come to the feeding stations where seeds and suet are available. While I keep a food supply during the Winter months, it is important that an abundant source of food under natural conditions also be within reach of the birds. Birds which become accustomed to a never-failing supply of food, without effort on their part, lose something of the habit of searching necessary to survival under the harsh conditions imposed by Nature.

A little study of the habits of the birds as one goes afield will soon disclose the kind of situations they seek and the food they like. But little effort is necessary to provide for the wants of the many of them. If space is limited, some care is necessary in selection to secure plants attractive to the greatest number.



Nest of yellow-head blackbird in Cattail marsh at Sunset Ranch



### Security from Enemies

I have already said that a safe place in which to rear the family is the matter of first importance. The birds soon learn where they are safe. Even the shyest will take advantage of the shelter offered by a bird refuge. The results obtained by Jack Miner, of Kingsville, Ontario, in attracting wild geese to his preserve is a notable example.

When I was living in Dent County, Missouri, wild turkeys nested in the Blackberry patch close to the house. This season, a crow built her nest in a Spruce tree within a few feet of my study window at Tamakoche.

Stop shooting and in a short time quail will become almost as tame as barnyard fowls. I have had them come into the lot to feed with the hens and, on another page, a picture is shown of a nest under a beehive near the house of a beekeeper whom I have visited.

The attraction of thickets of shrubbery and evergreen trees lies in the security thus offered. Small birds, pursued by hawks, will dash into a thicket and thus escape. Safety from storms is also furnished by such shelter.

The greatest menace to bird life under our present conditions is from cats. Cats are hunting animals and are harbored in large numbers in every community. An average cat requires a surprising number of birds to supply it with food. When the nestlings are learning to fly is the time of the greatest mortality. It is sad to contemplate the number of young birds that fall prey to cats at this season. Forbush estimates that an average cat will kill fifty birds each year. In my opinion he is rather under than over the mark. He mentions an instance where a cat killed ten birds in one day. One has only to watch a house cat for a very short time in a location where birds are plentiful, to be convinced that we pay a high price for its companionship.

Those who love cats should at least make some provision for confining them at the time when the young birds are leaving the nests. While cats kill birds at all seasons and stalk many which are full grown, the destruction of young birds is such as can never justify the owner in harboring the animals unrestrained.

The fact that most families keep one or more cats, and that they are allowed to roam at will over the surrounding neighborhood, presents a serious difficulty to the Nature lover who wishes to establish a bird sanctuary. Cat-proof fences are expensive and one hesitates to destroy his neighbor's pets by poison or traps.





**Cattails at Sunset Ranch**

Fortunate is the individual who has a marshy spot which can be set aside for Nature's uses

### **For the Water Birds**

Fortunate is the bird lover who has a marshy or boggy spot which can be set aside for Nature's uses. Such places when planted to Cattails and Rushes with an occasional overhanging Willow, will attract many birds. If the area is not too much restricted, coots, grebes, rails and marsh wrens will delight him with their company. Red-winged blackbirds and yellow-headed blackbirds may hang their nests above the water; and here, wild ducks may also be induced to rear their families.



## *Chapter III*

### Water for the Birds

ONCE, when visiting in Arizona, I saw a very striking example of the importance of a regular water supply for the birds. It was at the home of a friend who lived in the desert about ten miles from Tucson. By the simple expedient of providing a constant supply of water in a shallow pan near his door he had brought many birds to his vicinity.

Water is the measure of value in the desert. With an abundant supply, everything else comes easy; without it, little remains. One may drive long distances and seldom see a bird beyond the reach of water. Near a dependable supply there is a congregation of the songsters that is a delight to the Nature lover. The birds of the southwest were new and strange to me. Few of the old acquaintances were to be seen there. The mourning dove, the meadow lark, and the marsh hawk, all familiar and common in the Mississippi Valley, are frequently seen in Arizona, but the greater number are never seen in the Eastern States.

Dozens of birds were coming to the drinking place which my friend had provided. At one time I counted thirty-five of four different species perched in nearby Mesquite trees.

The camera which has been my companion on journeys from the far north to the Rio Grande was at hand, and it seemed too good a chance to miss. I was very anxious to secure a photograph of the Gambel quail. A blind was hastily provided by placing a brown canvas across some crates that chanced to be near. The camera was focused directly on the pan of water and I crawled under the canvas to await the coming of the birds.

For some reason they were slow in coming. Flocks of house finches and sparrows would alight in the trees, but they seemed strangely suspicious of my hiding place. Several gila woodpeckers kept coming about. Now and then one would alight near the water, only to fly away again crying, "look, look;" and, of course, frightening the other birds away.

When one lies in a cramped position it is difficult to avoid some movement. It seemed that every time when my bones were about to crack and I made a slight movement to relieve the strain, some bird happened to be just ready to take a drink. Patience is always rewarded in due time, but the trouble is that we are seldom willing to wait long.



The bird bath here shown is a homemade affair on the grounds of Mrs. Anne Spencer Knight of Edgerton, Wis.

It is of native field stone and measures 5 ft. long by 2 ft. wide; the water ranges from 2 in. to 5 in. deep at the lowest point, where there is an overflow pipe, and Mrs. Knight says the larger birds delight in sliding into the deeper water. Watercress is planted in the bath each Spring.

*Courtesy The Florists Exchange*

enough, whether for birds to drink or fish to bite. After what seemed hours of waiting, the house finches began to come down to drink. One would fly down and others, encouraged by his example, came also. Seeing them, the woodpecker would come too, but only to repeat his warning, "look, look," and away they would fly.

As the birds became less suspicious, I lost some opportunities by waiting a moment too long. A canyon towhee approached the water and stopped a moment to eye me cautiously. Now was my time, but I waited for him to come nearer, only to see him turn and fly away.

My friend had said that the quails came every afternoon to get water. Sure enough they came, but were frightened away just before they came within range of my camera. It was a long time ere they returned, and when they did, they were too sharp to be fooled by my blind. They came near enough for me to see every detail of their beautiful plumage, but turned and ran into the bushes before giving me a chance to make an exposure.

I spent most of the afternoon in the dust. It was a balmy day near the end of January and, in that climate, the weather was warm. My clothes were dirty, but that was of little matter. Vividly stamped on my memory was the mental picture of those plumed quail as they turned just outside the range of my camera.

Although I missed getting the desired pictures, I did have a fine time watching the desert birds at close range.

Apparently, hundreds of birds had learned to come to the pan to drink. The constant supply of water in a region where watering places are far apart, brought a delightful addition to the surroundings of the desert camp. The birds with their bright colors, animated movements, and happy songs cheered many hours for my lonely friend.

### Providing Baths for Birds

From the window of my office I can see a tiny stream fed from a spring. It is bordered with trees of several kinds—Elms, Mulberries, Boxelders, and soft Maples. Here the birds find an ideal place to bathe and drink, and they have great times splashing the water and fluttering about in their wet feathers.

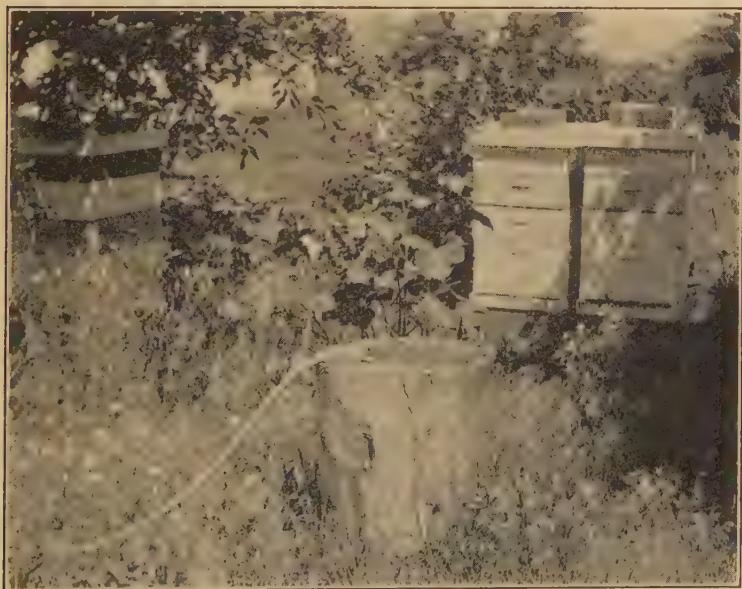
When we provide water for the birds, it is only necessary to bear in mind two things—it must be shallow and the container should be placed where the birds feel safe. Birds are cautious and do not relish bathing in deep water.

If one's inclination and purse will permit, he can buy an elaborate bird bath, some of which are very ornamental. But, it is not necessary

to spend money to provide for the wants of the feathered visitors. Many bird lovers erect some kind of pedestal to make the watering place safer. A shallow pan serves very well to hold water, but the water evaporates rapidly and unless watched, it will be empty much of the time. A dependable water supply is important to establish the habit of drinking or bathing in a particular place.

A unique arrangement, made by Leon Newton, Orchard, Nebraska, is shown in illustration. It was intended for the bees, which also come regularly to such a supply. However, it serves the birds equally well. It was made by hollowing out the end of a block of wood. It is shallow at the edge and grows deeper toward the center. The small pipe is attached to the city water system with the faucet closed to the point where it merely drips. Just enough water is allowed to flow to supply the birds and bees and care for the evaporation. The water thus remains fresh and plentiful with no overflow to make a puddle.

Where there is a Lily pond, it will serve the birds very well if the water is shallow at the edge. Otherwise, a special water supply should



**This watering place for birds and bees is cut in the end of a block of wood. A pipe attached to the water system provides a constant drip of water, just sufficient to supply that removed by evaporation.**



be available where they can get into it without danger of drowning. Small birds, like wrens, prefer shallow water, say a half inch or so in depth. Larger ones, like robins and bluejays, do not mind having it deeper. They like to be able to get in far enough to throw the water all over them and drench their feathers. The sloping bottom which permits them to find just the depth that suits their fancy is best.

Where small trees with overhanging limbs are within easy reach, the birds are more confident. If they can get into the shelter of a tree quickly when frightened from the bath, they will come much more readily. If no trees are at hand some sort of pedestal should be provided to raise the watering place above the ground. It is well to place the water in a position where the birds have a clear view in every direction and detect the approach of enemies. If there is shrubbery in which to hide, cats can approach unobserved and catch the wet birds with little difficulty.

A little ingenuity will provide water in any situation. If nothing better is available, birds will bathe in an earthenware plate or pie pan. One can make his watering place as simple or as elaborate as he likes. The birds are not hard to please, and will make the best of what is offered them.



## *Chapter IV*

### Attracting Migrating Birds

WITH what joy we welcome the first signs of Spring, when the snow is melting from the hillsides and the ice is beginning to break up in the rivers. We appreciate the swelling buds and the notes of the first returning birds. The honk of wild geese in arrow-shaped flocks coursing northward is a familiar sound.

To me, the greatest pleasures of the year come at this time. I love to spend hours in the field during April and May in order to enjoy to the full the presence of the migrating birds which remain with us so brief a time and then pass on toward their northern homes. Nearly every day brings some new comers.

The song sparrow, phoebe, bluebird, and robin, which remain with us for the Summer months, are among the early arrivals. Because they choose to rear their families among us, we feel very well acquainted with them. There are others, however, who are mere passing tourists, and consequently unknown to the casual observer. Of these the fox sparrow is among the first to arrive. Last Spring I noted one on March 13th, a cloudy day with a raw and chilling wind.

The fox sparrows seek the underbrush of the groves and brier patches where they delight in scratching among the leaves. With their fox-red wings and tail, with back and crown mixed with brown, they are often mistaken for thrushes. A little later the white-crowned and white-throated sparrows appear. Like the fox sparrows they seek the cover of thickets where they feed upon the fallen seeds. It would be impossible to estimate the bushels of weed seeds consumed by the immense flocks on their northern flight. What delightful little sounds do I hear when the white-throated sparrows are scratching industriously in the fence rows and neglected corners of the garden.

These are three beautiful and interesting birds and they come in sufficient numbers to make it a joy to watch their eager movements. The white-crowned sparrow, the largest of them all, and by some accounted the most beautiful, comes in smaller numbers in some years.

I love the Harris or black-hooded sparrow, which apparently moves northward in a narrow path. At my farm near Atlantic, Iowa, it is a common migrant both Spring and Fall, and I look for them in large numbers in my grove. To my great surprise I never saw one in the ten years I lived overlooking the Mississippi River at Hamilton, Illinois. The Summer home of this bird is in the far north in the Hudson Bay region, but I am delighted with their short visit in Iowa twice a year.



Seed ball of the Sycamore tree which furnishes food for migrating purple finches and other early birds

Another early arrival is the purple finch, a rose-colored bird which does not seem to mind the mild Winters and does not pass so far to the south as the others mentioned. While it is said to be a Winter resident in my neighborhood, I have not observed it until March. In contrast to the sparrows, which scratch among the fallen leaves in the thickets, the finch seeks its food in the tops of the tallest trees. Flocks of them may be seen opening the buds of the cottonwoods and pecking at the balls of the Sycamores.

Early in April the thrushes appear. The hermit thrush and olive-backed thrush are shy birds whose acquaintance can only be cultivated with patience and perseverance. They seek the seclusion of the thickets which are the haunts of the wood thrush throughout the Summer.

As Spring advances, the numbers of migrating birds increase and sometimes in May one is bewildered by the number and variety of strangers passing. In March, my notebook records from twenty to thirty species observed in an hour's walk in early morning. In May the number may be twice as many. The sparrows which were so much enjoyed in March will have been followed by the tiny kinglets, the water birds, and the warblers. Most interesting and confusing of all are the warblers which reach their height in May. They are small and sprightly with vivid colors, retiring habits and quiet ways. They move constantly among the branches in search of insects, and drive the novice almost to distraction in his efforts to determine the species. Along the Mississippi the myrtle warblers move northward in surprisingly large

numbers. At the high tide of migration one may see thousands of them among the trees. Again, others like the blackpoll warbler and chestnut-sided warbler, are seen in my neighborhood in only limited numbers each Spring. Some species may be seen only to disappear, and perhaps not return again for several years.

By the end of May one may search the field and not find a single species which will not remain for the Summer. The most interesting movement of the year is over. By this time, however, the nesting of the resident birds, the opening of the flowers and prospect of Summer, offers so much that is new that we are quite content.

Shelter and protection are the things necessary to bring these birds to us. Supply these needs and they will come in increasing numbers each year. No matter how small one's grounds or how limited his resources, he can attract some variety of bird to his dwelling. On large estates where proper conditions can be provided, dozens of species and thousands of individuals can be attracted. If shelter and protection are offered, the number will be limited only by the natural food supply. If, in addition, food is offered, there seems to be no limit to the number which will come.

### Jack Miner's Wild Geese

The most amazing example of success in attracting wild creatures that has come to my attention is that of Jack Miner, the Canadian



A view from Jack Miner's dining room window, at the Jack Miner bird sanctuary, Kingsville, Ont., Canada



Duck pageant on Lake Merritt, Lakeside Park, Oakland, Cal.  
*Courtesy Oakland Chamber of Commerce*



naturalist at Kingsville, Ontario. Miner has induced the wild geese, most wary of birds, to come to his farm by thousands. A few came at first, but when they found food in abundance and seemed to realize an assurance of protection, they came in constantly increasing numbers until now thousands of bushels of Corn are necessary to provide for the immense flocks which visit him.

Miner was once a famous market hunter. Now he finds far greater pleasure in cultivating the friendship and confidence of the same wild creatures he formerly hunted relentlessly. The story of his experience with wild geese and later with swans as told in his book, "Jack Miner and the Birds," reads like a fairy tale.

In 1904, he graded a small pond and bought some wing-clipped Canada geese which he confined there. An agreement was made with hunters in the neighborhood that there should be no shooting. Although the captive geese extended an invitation to every passing flock of wild ones, it was not until 1908 that eleven stopped to feed with the captives. Each year since the number has been increasing, until it is the wonder of the bird world and thousands of people drive long distances each Spring to see the wild geese on Jack Miner's pond. The photo kindly sent to me by Mr. Miner gives a glimpse of the pond during the migration. (See page 25.)

### Wild Ducks

In like manner, wild ducks have been attracted to several communities. Where there are water and food, they come in great numbers until it becomes a problem to supply sufficient food. At the beginning it is necessary to use captive birds to attract the passing flocks. The common use of live decoys by hunters makes the birds cautious and suspicious, and it requires some time to overcome the fear in the wild heart.

The wild ducks on Lake Merritt at Oakland, California, are a great attraction to visitors to that city. Here the ducks find a Winter refuge and return year after year. A state game preserve was established in 1869, the first in California. The number of wild ducks finding a haven is very large, as will be seen by the photograph. About the end of September, each year, the ducks begin coming in, until thousands are resting upon the quiet waters of the lake.

Pin-tail, widgeon, greenwing teal, shovelers, gadwell and mallards, as well as canvasback and redheads, mingle together in such flocks as are to be seen in few places. Each afternoon the birds are fed, and feeding time attracts many visitors among the residents of the city and passing tourists.

Where one has water, even a small trickling stream or a small pond, it is possible to attract an interesting variety of birds. By planting a margin of Willows, Buttonbush or other moisture-loving shrubs to provide cover, one can have an occasional visit from such shy birds as water thrushes and prothonotary warblers.

The kingfisher is a Summer resident which can be attracted, even within the limits of a city, by a small pond well stocked with fish. Most humans are inclined to a single idea and resent anything that interferes with it. I once visited a wealthy man's garden where extensive ponds were stocked with thousands of goldfish. He was much annoyed by the coming of the kingfishers. Instead of appreciating the fact that they added an unusual feature to his garden and the few fish they ate would not be missed from his great stock, he had them shot as intruders.

I have always been impressed by the immense number of wild creatures present in America at the beginning of the settlement by the whites. To me it seems desirable to restore such a condition as far as is humanly possible. I have accordingly encouraged such birds as



The blue-winged teal (male)



Nest of blue-winged teal at Sunset Ranch

red-tailed hawks, screech owls and others which prey upon rodents and insects. Unfortunately the tendency of the man with a gun is to destroy these species at sight, so there seems little chance of having them with us for long.



## Chapter V

### The Winter Birds

**A**T no time of the year are birds so welcome as in Winter. The falling of the leaves, the disappearance of the flowers and the fading of the grass leaves little life to cheer one who would go into the open.

So many of the birds migrate to warmer climates that we have but few species left. However, if you will take the trouble to offer proper inducements you may attract a large number of individuals of those which do stay. Flocks of juncos and tree sparrows will remain when

sufficient shelter and suitable food are available. Downy and hairy woodpeckers and red-bellied woodpeckers will make regular visits to suet boxes supplied for their use. Chickadees and crested titmice may even enter the open window to partake of your hospitality.

Bluejays and cardinals readily accept the invitation of the Nature lover, and add a dash of bright color to the somber Winter landscape. Quail appreciate a supply of grain if spread in a sheltered place. When



The cardinal adds a dash of bright color to the somber Winter landscape

these visitors are present, we find our Winter days much brightened, but we miss the songs of Summer. Excepting the cardinal, those which remain for the cold season are not much given to song, and even he is silent when the weather is very cold.

The crested tit gives us an occasional gay whistle and the chickadee calls "Spring Day" at the approach of Spring. The quail is likely to be silent at this season, when he is mainly occupied with avoiding the hunters and hungry animals. Even the harsh notes of the jay are welcome now and the sharp cries of the woodpeckers sound a cheering note as they come for their food supply.

The friendly little screech owl does not desert me in Winter, and throughout the year occupies the box I have put up for him. One with a liberal planting of trees, especially clumps of evergreens, is likely to find the long-eared and the short-eared owls also enjoying their stay in the vicinity.

In fact, one with grounds well planted with trees and shrubs may expect an occasional visit from many other friends from the north. The pine siskin, evening grosbeak, redpoll, and snowflake are among those which move southward in severe weather.



Crested titmice remain so near the suet as seldom to be missed



In some respects, Winter is the best time for bird study. Food is less abundant and storms often make it hard for them to find it. By putting out suet and seeds it is quite easy to attract them to the feeding boxes just outside the window, where they can be easily observed.

In planting one's grounds, it should be borne in mind that the larger the variety one plants the more birds will respond to his hospitality. Clumps of evergreen trees and thickets of shrubs furnish the protection and privacy that birds demand. They like to scratch among the fallen leaves where the overhanging branches protect them from the cold winds and furnish them hiding places from their enemies. Shrubs like the Indian Currant or Coralberry and vines like the Bittersweet, which retain their fruits, offer them a very acceptable means of satisfying their hunger.

Hollows in old trees or nesting boxes furnish safe retreats for the night for many species.

Storm shelters have been little stressed in bird literature, yet they are of primary importance, especially during the cold months. Some friends of mine lived for several years in a cabin on a steep hillside in the heavy woods at "Hidden Ranch" near Chico, Washington. On one occasion they watched the western Winter wrens seeking shelter at nightfall. They had put up a small box about 6x6 inches in size which was occupied during the Summer by a pair of violet-green swallows; by actual count thirty-one wrens were seen to crowd into this box; others unable to get in spent the night on a window ledge under the eaves of the cabin. They had frequently seen several birds enter the box, but never before such an extensive house party as thirty-one.

An interesting way to divert an idle hour in late Autumn or Winter is to watch the birds eating the seeds from the dead tops of the tall ragweed. The coarse stalks of this weed will stand erect and retain their seeds for long periods. I am not one to advocate shabby farming and the leaving of coarse weeds for the purpose of feeding the birds. However, it is a well kept place where no neglected corner offers food for such birds as juncos and crested titmice.

If we provide suitable shelter in the way of evergreens and shrubbery, the birds will reward us by using them as a base of operations from which they go out to gather the weed seeds from our gardens and fence-rows. Even a vivid imagination can hardly do justice to the amount of weed seed consumed by the Winter birds. One has only to watch them feeding on a Winter day to appreciate the fact.

In this connection, it may be interesting to mention some comments by Prof. F. E. Beal. Examination of many stomachs showed him that



It is a well kept place where no neglected corner offers food for Winter birds. When snow lies deep food is hard to find

in the Winter the tree sparrow feeds almost entirely on weed seeds. He estimated the amount consumed by each bird as one-fourth ounce daily. In an article which he contributed to the *New York Tribune*, in 1881, Prof. Beal made some interesting estimates on the amount of seed consumed by these birds in the state of Iowa. On the basis of one-fourth of an ounce daily, and supposing that there were ten of the birds to each square mile, and that they remained there for 200 days, he concluded that this one species ate 875 tons of weed seeds in a single season. Even this large estimate is probably far below the actual truth. In Winter, the tree sparrow is a common species in Iowa; at times hundreds or even thousands of them can be found in protected areas. When we add the juncos and other seed eaters, we find it hard to comprehend the amount of weed seed gathered by our feathered friends.

The author, however, is somewhat sentimental in his regard for the birds, and is quite willing to offer a refuge for the mere pleasure of their company. They are welcome to come to his grounds in Winter, even though they render no service in return.

Weed seeds are also an important item in the diet of the cardinal. It searches continually for them among the fallen leaves.



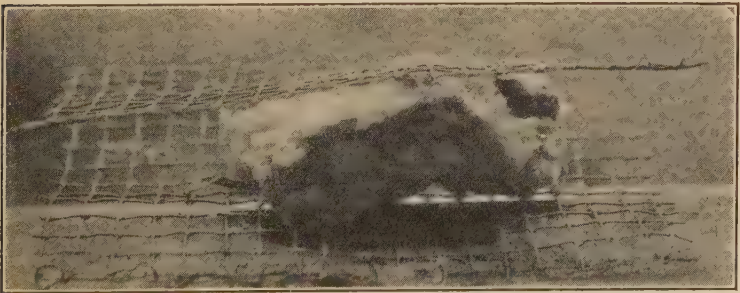
## *Chapter VI*

### Feeding Stations

IT is a very simple matter to provide feeding places for the birds and, by so doing, one may add greatly to the attractions of the Winter. Once they learn where the food is placed they will come regularly. In cold and stormy weather they will come more frequently and in greater numbers. Some independent individuals, that seem to find plenty of food for themselves in mild weather, visit the feed boxes infrequently when Nature is kind. When the snow is deep and the weather is cold and food is more difficult to find, they seem appreciative of the food set out for them.

My feeding places are of two kinds: a box for grain and holders for suet. Some birds take the suet, and some only the grain and seeds. Some, like the bluejays, seem to like anything which is filling and help themselves freely to both grain and suet. The jay is a greedy fellow and one must take care that the suet is fastened so that he cannot take the whole lump and fly away with it.

In order to make the most of the presence of the birds on gloomy days, when one finds them especially interesting, I have fastened a suet



Suet in holder on window sill. When window is closed it holds contents securely

holder on the window sill. Another is fastened to a tree about 10 feet from the living room window. These holders are made of strips of wire screen of a  $\frac{1}{2}$ -inch mesh. This mesh is large enough to permit the birds to remove the suet readily and small enough to prevent them from taking it in larger chunks than they can readily eat.

The holder placed on the window sill is folded in the middle and so placed that the edges come under the sash. When the window is down, it holds it tight, but when it is raised it permits the lifting of the wire to open the holder. The lower side is tacked to the sill with two large-headed nails.

The hardware store will supply the wire and cut to desired size, so it is but the work of a moment to fold and tack it in place. After trying various kinds of holders for suet, I find this one serves every purpose, wastes less food, and is generally more satisfactory than any other yet tried.

The one attached to the tree is made in the form of a pocket with the lower side against the tree and the upper side spread open to permit putting in the suet. The birds peck at it through the meshes of the wire. The jays, however, soon learn to remove the lumps of suet from the top and make off with them. As I write this on a January morning, a scarlet-topped, red-bellied woodpecker is eating his breakfast at the feeder in the Mulberry tree, while a pair of crested titmice are feeding at the window sill. Chickadees and downy woodpeckers await their turn.

The downy woodpeckers are the most regular visitors to my suet holders. They come many times every day and each time approach as though they had never been there before. Alighting in the tree one will examine it with the greatest care—up and down, back and forth, to make sure that no hibernating insect in a crevice of the bark has been overlooked. Finally, coming to the suet, one would think he was greatly surprised to find such a plentiful supply of food ready served.

The crested titmice are more direct. They come very frankly, fly directly to it, and make a business of eating until they are satisfied. Sometimes three or four of them will come at the same time, and part of the bunch will worry about impatiently waiting for the others to finish so that they may have their turn. They are friendly, and do not seem to mind having me stand just inside the window watching them at their meal. The chickadees come in like manner, and are also unafraid.

Sometimes, after breakfast, the downy woodpecker will settle down for quiet contemplation, holding fast to the bark of the tree with his





The downy woodpecker is the most regular visitor to my suet holder

sharp claws and resting on his stump of a tail which seems built for that special purpose. There he sits until his appetite returns or his ambition is revived, when he is off again, examining the same limbs of the same tree in the same way that he has already looked over a hundred times.

### Feeding the Seed Eaters

One of my friends has a little suspended platform about 2 feet square on his porch. The overhang of the porch keeps the food dry; sometimes the movement of the platform as it sways about with the alighting of the birds alarms the English sparrows. Sparrows are suspicious fellows and fear a trap. Most other birds have learned to come fearlessly to this table, and there is a long list of feathered visitors.

There are numerous feeding platforms on sale in the market. Some are provided with roof and shelter on three sides, with a vane to catch the wind and swing the open side away from the wind. One whose pocketbook will permit, can find something useful and at the same time ornamental, and those who are ingenious can make for themselves something to serve the same purpose.

When I made mine, I was in a hurry and had no idea in mind other than to supply a place for the birds to feed. Accordingly, I secured a cartridge box at the hardware store. It was substantially made and it was but the work of a few minutes to adapt it to the use intended. The box was 10x10x14 inches in size, just right for a feeding station



The crested titmice make a business of eating until they are satisfied

for seed-eating birds. A strip about 2 inches wide was nailed across the lower side of the open face and the box turned on its side. In this position it was nailed to the Mulberry tree beside my window. The opening is to the south. Most of the storms come from the north and west so that the feed remains dry; and the strip prevents it from being scratched out, although the birds do scatter some on the ground below.



The chickadees are likewise unafraid

Cardinals and bluejays are the most frequent visitors to the seed box, which is kept supplied with a variety of dry grains and seeds. Cracked corn, wheat, sunflower seed, etc., meet the need very well. Flocks of juncos and tree sparrows come to gather up such grain as is scattered on the ground, but do not often enter the box. For their benefit I drop some wheat among the leaves about the base of the tree.

At times, the fox squirrels come also to the feeding box. They are hungry fellows and it takes much grain to satisfy their appetites.

I have seen some open platforms, built against the bodies of large trees, which were visited by large numbers of birds. Without a roof they served admirably in good weather, but in times of storm, when the birds most needed the food supplied, it was covered with ice and snow.

It is important that a dependable supply of food be provided during the period of uncertain weather—from Autumn until April or May.



## *Chapter VII*

### Nest Boxes and Storm Shelters

#### The Woodpecker Family

THE most satisfactory home for woodpeckers is an old tree which has partially decayed. They seem to find the greatest delight in boring holes in this decaying wood and making for themselves nesting sites and storm shelters. Spring is the high tide of the year for the birds. At that season their songs and plumage are at their best and they engage in many activities which are not apparent at other seasons.

It has always been a source of great interest to me to watch the woodpeckers preparing to establish the family. Finding a suitable snag, they begin hammering away to excavate the wood and provide a cavity of sufficient size. At times, there have been very spirited contests between individuals for a particularly attractive tree. Once let a family make use of it for a season, and they will fight desperately for its possession again the next year.

In my yard at Tamakoche, there are some old Basswood trees with partially decayed trunks which please these birds. In one there have been made a dozen or more holes in the last twenty years. This particular tree was long occupied by a family of red-headed woodpeckers. The flickers arriving first in Spring would take possession, but when the red-heads came, they would fight so persistently that the flickers would retire.

Where there are plenty of old trees one may be sure of having woodpeckers if they are protected. The present tendency to employ tree surgeons to save old trees and to remove every dead limb, complicates matters for the birds. The removal of dead wood and the filling of cavities with cement deprives them of suitable nesting places. The effort to save the trees is commendable, but it makes it necessary that some provision be made for the convenience of the birds.

My first interest in this particular problem was aroused more than twenty years ago. I knew nothing of the Berlepsh nests which had

been made in Germany by boring out cavities in the natural wood in imitation of the birds. Commenting on the use of them, a well-known bird magazine stated editorially that no one had been able to attract woodpeckers to artificial nesting places in America. It was further stated that it would probably be necessary to devise expensive machinery to bore out cavities in imitation of those made by the birds.

About that time I put a weather-beaten old rabbit trap on a pole, leaving the small hole through which the trigger had worked for an entrance. This box was soon occupied by a pair of bluebirds. They were no sooner well established than a pair of red-headed woodpeckers took a fancy to the box. The hole was too small to permit them to enter, but they enlarged it and threw out the materials which the bluebirds had brought in for their nest. They made a great deal of fuss over their find and seemed to feel that the situation was ideal. They spent such long hours working and hammering at that box that I decided they were permanently located before they gave up the attempt.

Every Spring a pair of flickers insisted on boring holes in the cornice of my roof. Of course they were unable to nest in the cavity thus made



This box was first occupied by flickers and later by sparrow hawks



available. However, these incidents convinced me that the only reason the birds did not rear their families in these cavities was the lack of nesting material. When they bored the holes in the old Basswood tree they left some chips in the bottom of the cavity which served as a first-class nest.



The first flicker at home

A sudden inspiration possessed me. With some old, weather-beaten boards I made some boxes. I reasoned that with a deep cavity and some cork chips in the bottom, the woodpeckers might be suited. They were. The first box was nailed to the side of a tree with a broken top. It was placed about 20 feet from the ground in a situation somewhat similar to the natural cavity the birds had excavated in another tree. Early in the Spring of 1910, it was occupied by a pair of flickers which seemed very much at home. When they had been in possession about two weeks they were driven out by a pair of sparrow hawks.

Another box was put up not far away and the dispossessed flickers moved into that, but they were not permitted to rear their family in peace. They were driven out by fox squirrels who fancied the box.

In the meantime, the bluebirds, having arrived before the red-headed woodpeckers, had again nested in the old rabbit trap on the pole. To insure their safety I cut a hole just the right size for their convenience in a piece of tin and placed it over the entrance. The woodpeckers could not enlarge that and force an entrance. When they seemed well settled in housekeeping I moved the box to a nearby tree. The bluebirds did not seem greatly disturbed by the moving. As soon as I felt sure that they were adjusted to the new order, I placed another box especially fitted up for woodpeckers on the pole. This time the flickers were more successful. The returning red-headed woodpeckers fought valiantly for the box, but finally gave it up and settled elsewhere.

Since then, many families of both red-headed woodpeckers and flickers have been reared in my boxes. The account of this first successful experiment was published in "Bird-Lore" for March-April, 1911. Now woodpeckers are nesting in boxes everywhere. The cork chips or sawdust was the missing factor, and with that provided, most any old kind of box would do.

Four species of woodpeckers are common at Tamakoche. In addition to the two already mentioned, downy woodpeckers and hairy woodpeckers are constantly seen. These smaller birds seem to prefer the holes they make for themselves in the decaying Apple trees to the boxes I have made for them. That boxes are not unacceptable I know, however, for there are numerous reports of their use by these birds.

Just here I must confess that neither my fruit nor shade trees have been as carefully trimmed as proper usage demands. A failing Plum tree has been permitted to stand as long as it would. I loved the downy woodpeckers which had made a cavity just under the lowest limb too much to remove it. The more available cavities about my premises, the more birds will be present both Summer and Winter. A little investigation disclosed that when these cavities were not in use for nests, some birds were likely to occupy them for storm shelters.

One who has old trees need not worry much about special invitations to the woodpeckers, but it takes a long time to get old trees in new locations. Those who have only small trees can overcome the handicap to a considerable extent by the use of boxes. I would expect any kind of woodpecker to be pleased with a box properly made and suitably placed.

In making boxes for the woodpeckers it is necessary to bear in mind the size of hole each makes for himself, the depth of cavity excavated and the approximate position the natural home is likely to occupy.

The boxes intended for red-heads were made of boards 6 inches wide and 2 feet in length. When nailed together in the form of a box



Box in which the flickers first reared their young

with both ends closed, a round hole was made about 4 inches from one end to serve the birds as an entrance. About 6 inches of ground cork was then placed in the box, which was nailed to the top of a pole or the side of a tree in an upright position. The hole should be about 2 inches in diameter to serve for either woodpeckers or flickers. A box of this size, however, while suited to the needs of the red-headed woodpeckers, is a little too small for flickers. Mine have been occupied by flickers, but the space was too small for the comfort of the growing family. Other boxes were made of boards 8 inches wide and  $2\frac{1}{2}$  feet in length with entrance holes 3 inches across. These were provided with cork and placed in similar positions. It required a number of these boxes to meet the needs of all the tenants who apply. Flickers, screech owls, sparrow hawks and fox squirrels all like them and have therein raised their families in comfort. I find that such boxes should be at least 10 feet above ground and that they are more likely to be used if placed 16 to 20 feet.

In making boxes for downy woodpeckers or chickadees, 4 inches is wide enough for the cavity and it should be shallower as well, but the proportions may be about the same.

### The Screech Owls' Housekeeping

The screech owl is easily satisfied. He wants a snug and dark retreat, but spends much time on gloomy days looking out the door to see what is going on in the world outside. Really, one should put up two boxes for each pair, since father owl wants a storm shelter for himself while mother owl rears the family. This does not indicate that the male parent is negligent of his duties, for this is not the case. Both parents bring food and the male is constantly on guard when the young are in the nest. He will attack fearlessly when the family is threatened.

Some have wondered at my inviting owls to my bird preserve. This little bird suffers an unjust reputation. I have watched the refuse which accumulated below the nest to make sure what they were eating. It is true that a small bird falls a victim to the screech owl's hunting proclivities now and then, but such events have been comparatively rare in my observation. Mice furnished the greater part of the food, together with large numbers of insects. The screech owl is really quite a small bird himself and incapable of injury to large birds or poultry except when they are very young. Most birds are on the roost at the time when he is foraging, and since mice and insects are active

at night, they very naturally fall a prey to this silent hunter. I say silent, meaning when he is hunting, for at times he indulges in a very weird night call which makes the shivers run down the backs of city folk who are unfamiliar with it.

So many families of screech owls have been reared in my boxes over a period of twenty years that I have no idea of the number. The story of the screech owls has been told at length in "Our Back-door Neighbors," a little book of tales of my wild friends.

### The Sparrow Hawks

The coming of the sparrow hawks to my box was really a surprise. It was a red letter day when I found them there. I had an excellent opportunity to observe their family life, for the box was but a short distance from the house and I could visit it several times daily. Both parents foraged over the nearby meadows and brought in mice and



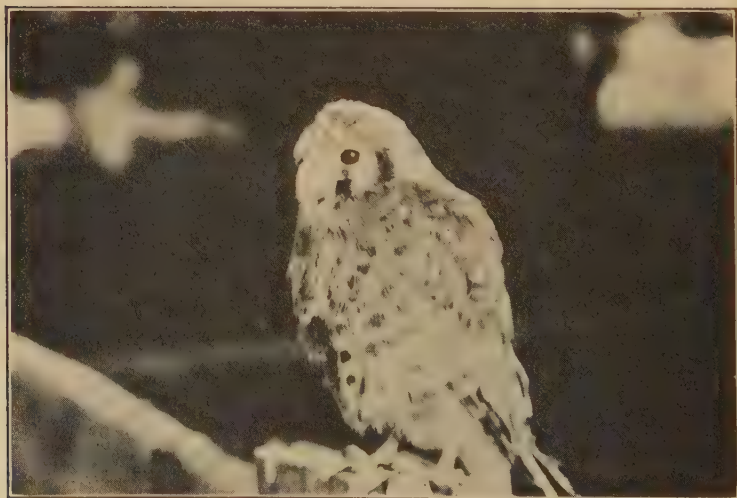
The screech owl wants a snug and dark retreat



grasshoppers in large numbers. Numerous crickets and an occasional ground squirrel made up the greater part of the menu. A few birds were brought to the nest and the feet of these which they discarded were sent to the biological survey at Washington for identification. Most of them were English sparrows, with now and then a black-throated bunting or song sparrow.

A pair of bluejays built their nest in a tree near to that occupied by the sparrow hawks, but the birds lived on good terms and neither disturbed the other. On one occasion the sparrow hawks and bluejays joined in chasing a crow which chanced to alight in a nearby tree. Hens were constantly about with their flocks of small chickens, but never to my knowledge, did these little hawks catch any of the baby chicks.

The box in which the hawks nested was made of 8-inch boards, as already described, and was roomy and deep. Since these birds supply no nesting material, but depend upon finding a natural hollow in a tree ready for use, the boxes served very well. They reared a family of four young ones to maturity. I spent so much time about the nest that the parent birds would permit me to approach within a few feet before the Summer was over. The youngsters had little reason to fear mankind, and it is probable that they soon fell before some hunter's gun.



The coming of the sparrow hawks was really a surprise





Young sparrow hawks in a box

### The Bluebird

When the author was a boy in western Iowa, the bluebirds were among the most common of our feathered visitors. Every grove and orchard sheltered one or more pairs of them. Because of their bright colors, useful habits, and friendly nature, they were universal favorites.

Nesting in old woodpecker holes, or in boxes or cans put up by friendly farmers, they were as familiar as the robins. Soon straggling English sparrows were seen in the region, first in the towns and later on the farms. The sparrows likewise lived about the homesteads and likewise nested in such cavities as they found. The sparrow is an aggressive bird and did not hesitate to drive out the bluebirds, although the nest might contain eggs or young birds. The rightful occupant was dispossessed, eggs or young birds thrown out and the newcomers proceeded to rear their own families. The bluebird is peaceful and inoffensive and offered but little resistance. As a result, they decreased greatly in numbers and in a few years were seldom seen, and gradually ceased to be common about orchards and farmyards and in small towns.

Instead, they were to be seen in woodland borders and such situations as their persecutors left them. In a few places where they are given protection, the bluebirds are still common, while in many neighborhoods they are rarely seen.

To bring them back to our dooryards it is only necessary to provide them with suitable nesting sites and protect them from the sparrows. Their nesting requirements are easily met, but it is not so easy to give them the needed protection. There are places in large cities where the sparrow may well be encouraged, since few other birds will remain there, but the less of them there are about the country homes the more of the native birds will remain.

After several years with few, if any, bluebirds about, I tried to bring them back to Tamakochee. In spite of all efforts to reduce their numbers, some sparrows remained, and such success as could be obtained must be in spite of them.

Various nesting boxes were offered, all of which seemed acceptable to the bluebirds, but they were seldom left undisturbed for long by their pugnacious persecutors. Finally, tin cans of the three-pound size (nearly one quart), were tried in various situations. Along the fence-row bordering a small field, several cans were placed upright on top of the fence posts. The open end was set on top of the post and fastened with small wire nails. Close to the top a round hole was cut about an inch and a quarter in diameter. These cans, being somewhat removed from the immediate vicinity of the buildings, failed to attract the sparrows, as did the boxes which were nearer. With no perch on which to alight, they did not take kindly to them, and the bluebirds had far less competition than in any other kind of nesting site offered. A number of them were placed on the posts along the fences about the place with the result that we soon had bluebirds again in something like the old time numbers. House wrens occupied the cans also, and few were left unused. Since tin gets very hot in direct sunlight, the cans should be placed in partial shade.

To the gardener there is no bird more worthy of encouragement. Few labor so industriously on our behalf and ask so little in return. Many of our most effective insect-destroying birds are also great lovers of fruit, and thus demand some wage for their service. The bluebird, however, rarely feeds on cultivated fruits; during the Summer season insects compose almost the entire diet. In the garden it destroys incredible numbers of cutworms and in the orchard wages a similar war on cankerworms. To list all the injurious insects eaten by bluebirds would be a formidable task, while in the other column we find no



Tin cans were placed on the posts of the fencerows and soon we had bluebirds again

damage to charge against it. No fruit grower has yet complained of the bluebird as an enemy, while all recognize his friendship.

Such fruit as is taken is nearly all wild and consequently of little value. Those who would attract these birds outside the breeding season, may well consider planting such wild fruits as will serve their needs when insects are scarce, for at such times bluebirds depend upon them for food.

Greenbrier, Virginia Creeper, Bittersweet and Cedar berries are especially attractive to them in cold weather. Holly berries and Rose hips are also eaten. Choke Cherries and Elderberries, as well as Pokeberry and Wild Sarsaparilla, supply variety to the diet.

The three varieties—the eastern bluebird, the western bluebird, and the mountain bluebird, are similar in their habits. All take kindly to nesting boxes and all are useful in their food habits. Whether the reader lives in Maine, Colorado or Oregon, bluebird families can be brought to his vicinity with a little thought to their needs and protection from their enemies.

### Nest Boxes for Wrens

The house wren is one of the most widely distributed of American birds. It is found from the Atlantic to the Pacific and from Canada to the Gulf of Mexico. Three varietal forms are recognized with a slight variation in different regions, but their habits are essentially the same everywhere.

It is a happy and noisy little bird, equally at home about the haunts of man or in the wildest places. It builds its nest in any suitable cavity; in hollow trees, holes in the rocks, on ledges, under the eaves of outbuildings, or in nest boxes provided for it.

The nest is a bulky structure of coarse sticks, with a deep cavity lined with feathers. The wren makes a holiday of nest building and stops frequently to sing. It is one of the busiest of birds, raising as



Young Bewick wrens in the nest



many as three broods of from four to nine in one Summer. The food consists almost entirely of insects and a family of these birds will consume a surprising number. It is only necessary to spend an hour watching the feeding of the young to form a good opinion of the service they render in the garden.

For years I have cultivated the wrens and have had them nesting in all kinds of situations—in tin cans, in boxes, on shelves in outbuildings, or under the eaves of the barn. Many times have I taken a 1-inch auger and bored a hole through the side of a building and fastened a small box inside. If a perch was placed outside, wrens seldom failed to take advantage of the opportunity thus offered.

The English sparrow persecutes the wren unmercifully. The sparrows take possession of the wrens' nests in many cases and drive them out. To avoid this, it is only necessary to provide nest boxes with an opening exactly 1 inch in diameter. The sparrow is larger than the wren and is unable to enter a hole the size of a twenty-five cent piece.

Some writers condemn the house wren because one will sometimes pierce the eggs of other birds. It is well to place the nest boxes of the wrens some distance from the nests of other birds, as there is less danger of such difficulty when they are not too near together. I have had dozens of wrens living about my grounds at one time and have felt that they are as free from fault as the average of other birds.

The Bewick wren is similar in its habits to the house wren and will occupy similar nesting sites. It readily occupies boxes and its lively song is a welcome addition to the wild music about the home.

The Carolina wren will occupy boxes at times, but it is more inclined to seek the solitude of the woodland near streams, and in thickets and about fields. This species is more southern in its range, although I have often heard them near my home in Hamilton, Illinois. Boxes for wrens should be placed at from 4 to 10 feet above ground. About 6 feet seems to be the favorite height.

### Establishing Purple Martin Colonies

Much has been written about the difficulty of establishing purple martins in new locations. In some cases this is probably due to the unfavorable location of the houses or some mistake in their construction. However, these birds are much inclined to return to the same haunts year after year.

I have established two colonies of martins in two different states, and in neither case was there any difficulty in attracting them. In one





Purple martins near my house at time of Fall migration

case several small houses with two compartments were used, while in the other a larger house with a dozen rooms was put up. If no martins have nested near in previous years, it is hardly to be expected that more than one or two pairs will come the first season. After that the number will increase rapidly from year to year if additional facilities are offered. If one will continue to add new houses as the population increases, it is possible to bring hundreds of these birds, within a few years.

The greatest difficulty is in overcoming the presence of the English sparrows, which take possession of the houses as soon as the martins have gone. The sparrows fill the boxes with coarse nesting material which the martins are unable to remove, and soon entirely crowd out the martins. That is exactly what happened to my own martin colony after I left the place and rented the premises to a tenant who was not interested in birds. This condition is easily avoided by closing the entrances of the houses when the martins start on the southern migration and leaving them closed until the time for their return.

There are two things that are essential in attracting the purple martins. The first is that the houses be placed on poles from 15 to 20 feet high and situated at some distance from other objects. These

birds insist on a clear field for observation. I have never succeeded in getting them to occupy houses on tops of buildings, in trees, or even on poles near trees or buildings.

The second essential is a room about 6 inches square and about the same in height, with a porch in front and with the entrance low down so that they can walk in from the porch without having to climb or take wing in order to get in.

The entrance should be from  $1\frac{1}{2}$  inches to 2 inches in diameter. As many rooms can be provided in the same house as is desired, but to my mind houses of more than a dozen rooms are hardly to be advised. It is better to put up more houses than to crowd too many birds into one dwelling. There is less danger from disease and parasites.

In line with the general tendency of the times to buy everything ready-made, most people like to buy the houses ready to put up. There are several concerns which offer bird houses in great variety at a wide range of prices, but if one is mechanically inclined and wishes to make his own, it is a simple matter. No detailed plan need be given, for it is only necessary to comply with the few simple requirements above mentioned. With rooms of 6 or 7 inches in length, width and height, low entrances and ample porch, it only remains to place the houses on poles of the right height and proper situation to offer an attractive invitation to the martins.



## *Chapter VIII*

### Some Strange Pets

**M**UCH as I enjoy the companionship of wild creatures, I dislike to see them in confinement. Such pets as we have had have been derelicts of chance acquaintance. These have been cared for until they were able to shift for themselves or preferred to move on. Some have remained with us but a few days, while others have stayed until we became greatly attached to them.

At times we have cultivated some which are not regarded as desirable tenants of a bird preserve. While there have been some tragedies because of the presence of the predaceous species, on the whole, the



Visitors were surprised to see a hawk come sailing over the treetops

experience has been well worth while. At least we have learned something about the relationship of birds and animals in the wild.

The most interesting pet which we ever had was a hawk. Hawks are not usually thought of as desirable pets, nor yet are they even permitted to remain in well-ordered neighborhoods where wild life conservation is popular.

When cutting a nearby field of hay, the mowing machine passed over the nest of a marsh hawk. Some of the nestlings were killed outright or were so badly injured that they died. One youngster, however, escaped without a scratch. He came to us a downy fledgeling with brown feathers just beginning to show. It was something of a task to provide for his voracious appetite until such time as he could feed himself. The meat scraps which we fed him seemed to agree perfectly, for he grew rapidly and was soon flying about the yard. That he was not entirely satisfied with the variety we offered was evident from the fact that he would sometimes pull the blossoms from the red clover and eat them.

Instead of leaving us as soon as he could fly as did some of the orphans reared in similar manner, "Snappy" chose to remain. He was the source of great curiosity in the neighborhood, and visitors were greatly surprised to see a great hawk come sailing in over the tree tops and alight on the shoulder of some member of the family. No matter how high he might be flying, he would come at our call if within hearing. He showed not the slightest fear.

At times he seemed a bit too friendly, especially to the lady of the house who was in the habit of going out bare-headed. He took delight in perching on her head and she was often scratched with his sharp claws in his effort to balance himself in the uncomfortable situation.

The chickens were terrified at his approach. Whenever he would come sailing over the barnyard there would be a great commotion and running and cackling among them, yet he never offered the least indignity to any feathered



At times he seemed a bit too friendly

creature. Although the hens went freely about the yard with their chicks, he paid no attention to them. No song bird was disturbed. He was always an object of distrust on the part of other feathered tenants, but I never could see that he gave them any reason for their dislike.



Rabbits ate the bark from our young fruit trees, but we loved them just the same

the lawn. They were too numerous for the good of our garden. They barked the shrubbery of the young fruit trees and ate the peas, but we loved them just the same.

On the whole, the presence of the marsh hawk had a very good effect. He destroyed quantities of insects, ate many mice and reduced the number of rabbits. To go into the yard and call "Snappy, Snappy," and see him come sailing in from the upper air was a never to be forgotten experience.

One morning he flew away, never to return. Always we have wondered as to his fate. In vain we called but he did not hear. We have always supposed that he fell before some neighbor's gun. So general is the prejudice against hawks that few would miss an opportunity to destroy one. Fearless as he was, he would approach within easy reach of anyone he chanced to meet. Poor Snappy! Never has the passing of a pet left a greater regret in the hearts of our family.

### The Greedy Jay

No less interesting, although somewhat more agreeable as a pet, was a bluejay. He grew up on a diet of earthworms, grubs, and insects, supplemented with liberal quantities of bread and milk, which

With the rabbits, however, it was quite another story. He liked insects and the flesh of animals. Poor bunny found the newcomer an implacable foe. No rabbit dared to show himself about our grounds. To do so was to court instant disaster. Prior to the coming of Snappy, the cottontails had made themselves very much at home. At times we could see as many as three playing about on





The bluejay remained with us from choice

serves as a satisfactory diet for many young birds. It takes so much food at such frequent intervals that human ingenuity is severely taxed to get enough insects.

When the care of young birds is left to boys and girls, there is quite likely to be suffering on the part of the fledgelings. Growing birds have voracious appetites and require a surprising amount of food to meet the demands of their rapidly developing bodies. When one assumes the responsibility of caring for such a youngster he should take some lessons from the parent bird. One has only to observe how busy it keeps the parents to feed their family to see that it is quite a task to raise a young bird. Provision must be made for frequent feeding and the younger the bird the more often it should be done.

The bluejay, like the other birds which we reared, grew up with no restrictions on his freedom. He came and went at will, but since in early life he was dependent upon us for food, he remained with us from choice. Birds reared in this manner give one a very good opportunity to become acquainted with their habits. Being on intimate terms, nothing in their daily doings is hidden from observation.

From numerous acquaintances of this kind, I have come to the conclusion that it is never safe to determine the habits of any species by a limited observation. Birds are quite individual in their actions.

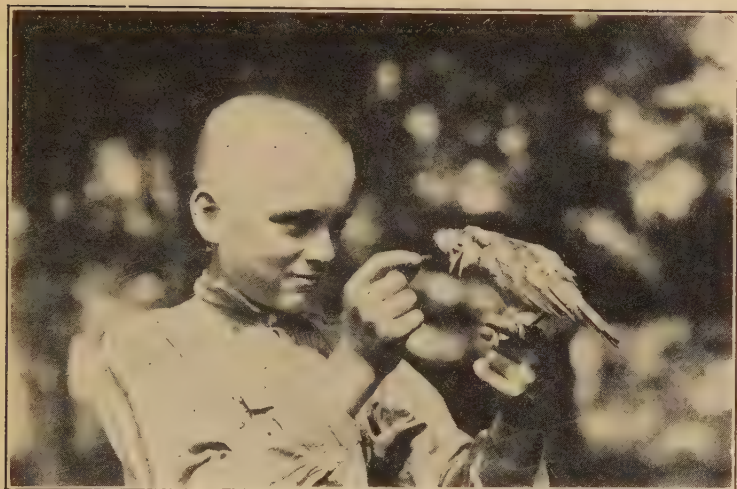
The fact that someone sees a jay in the act of robbing another bird's nest does not justify us in starting a campaign of destruction on all the bluejays as nest robbers. It is quite probable, of course, that the habits of our pet were modified somewhat by the unusual environment in which he was reared. If he ever disturbed the nest of any bird, I never knew it.

Jays were common about our grounds for many years and my opinion of the bird is based on the behavior of many different individuals. I have known several mischievous ones which would lead anyone to damn the entire species. One visited a hen's nest every day to get the egg as soon as it was laid. I have seen another calmly rifle the nest of a vireo, while a dozen other birds flew about in the greatest distress with cries of protest and alarm. Again, I have had bluejays rear their families in the same tree with other birds and apparently not the slightest notice was paid to the neighbors' domestic affairs.

I have come to the conclusion that jays are a desirable addition to the list of birds nesting in my trees. They are beautiful creatures with their blue coats trimmed with black and white. With their striking crests and saucy calls they add much to the interest of my day,



Being on intimate terms, nothing in his daily doings was hidden from us



**Our pet jay was a persistent beggar**

especially in Winter, when there is so much that is drab and dreary. When a nest robber appears he should be quietly disposed of by means of a small-bore rifle with shot shells. Pilfering habits are quite common among birds, and it takes a careful observer to decide which individual is such a nuisance as to justify his destruction.

Our pet jay was a persistent beggar. Young birds having learned to fly, follow their parents about begging food. Our jay would follow the members of the family about in similar manner. After he was grown he found it easier to beg his food than to hustle for it himself. His near approach was not resented as was the hawk, since he lacked the sharp talons which were so unpleasant in contact with one's head or shoulder. Even Ruth, then a child of four, liked the jay and did not mind when he alighted on her head. She had a wholesome respect for the hawk on the other hand, and would keep a safe distance from him if possible.

Jay's begging proclivities finally resulted disastrously for him. When the fly swatter came into play he followed eagerly and gorged himself with flies. It came to be a game to see how many he would eat. One evening, after he had eaten several grasshoppers, the swatter was taken to the outside of the house where the flies had gathered on the screen door. Jay ate 82 flies before he seemed satisfied. A short time

later he demanded more and swallowed them as fast as the swatter brought them down until he had consumed 124 more. Even then he seemed quite willing to continue. More than 200 flies beside several grasshoppers had disappeared down his gullet within a very short time.

So persistently did he beg for flies that one evening when the insects were very plentiful on the screen the swatter was brought into play with the intention of filling Mr. Jay to the limit of his capacity. He was game all right, and showed no disposition to back down on his job. No record was kept of the number of flies consumed, but they followed each other in rapid succession into his mouth until it seemed impossible that one small bird could hold so many. There is a limit to everything, even the capacity of a hungry jay bird, and in time the limit was reached. He lacked his accustomed pep. Instead of being active and noisy, he was quiet and sluggish. The next morning he was dead. As far as we could see there was no reason for his demise other than his appetite.

Such attempts to feed hungry birds with their natural food give one some idea of the enormous number of insects consumed in the course of a day by a normal bird. If it were not for the help of the birds, gardening would be well nigh impossible. The hosts of insects would defeat our efforts in spite of poison. Birds work from early till late



A mischievous pet



in searching every bush and crevice where bugs can hide. The constancy with which they work and the rapidity with which they digest their food, makes them invaluable allies in our warfare against insect pests.

### A Night Hunter

On one occasion my boy Melvin brought home a young great horned owl with a broken wing. At that time we were living in the town of Hamilton, Illinois, overlooking the Mississippi River. The alley through our block had never been opened because the house was near the end of the street and there was a gully where the alley should have gone. In this broken area had grown up a thicket of black locust trees. In the middle of the thicket was one small tree which had fallen over. The horizontal trunk furnished a good roost, while the thicket made a hiding place quite to the liking of such a bird.

After the broken wing had been tied up to the best of our ability, the bird was given a meal of meat scraps and taken to the thicket. The regularity of his meals and the quiet of his retreat seemed quite satisfactory and he showed no disposition to leave us.

Unlike the other birds which we had treated in similar manner, he never became friendly. He would permit our approach with food and snatch it eagerly, but would resent any show of familiarity. His talons were sharp, and he would strike viciously at any hand which offered a caress. Our endeavors to cultivate his confidence were all in vain. No matter how frequently we visited him or how well we fed him, he maintained his reserve. We all soon learned to respect his dignity. A few contacts with his beak and talons were sufficient to impress us with the idea of keeping a respectful attitude.

Our house was a block from the nearest street light. Beyond us toward the river there were no lights except those on the power dam that spans the stream at this point. This dark area furnished an ideal hunting ground for an owl. He was always to be found quietly on his perch during the day, but at nightfall hunted as though it was a wilderness.

Soon there came to be hints of strange doings in that end of town. Young folks coming home late at night were frightened half out of their wits by weird noises, with which they were unfamiliar, and the sudden appearance of a large object which passed them in the darkness. The presence of such a big bird in town was so unusual that few recognized the fact that he was there. His retreat in the thicket served to



hide him so effectively during the day that only a few close neighbors knew anything about him.



The great horned owl goes forth in the night as winged death

The great horned owl is one bird that I would not advise cultivating in a bird preserve. He is quick and powerful, strong enough to strike down a full grown hen. Even the wily Canada wild goose has been known to fall a victim to his talons. He goes forth in the night as winged death. Silent as a shadow he moves, striking his prey when asleep on the roost. There is no escape from him except by hiding. A pair of these owls will work great destruction

among the birds of a neighborhood; their appetites are voracious and they seem disposed to kill for the mere lust of blood.

It was impossible that our strange guest could continue to live in a closely settled community, but we were hardly prepared for the termination of his career in the way in which it came. We had continued to feed him so that he was independent of his hunting, but this did not satisfy his proclivity to look out for himself and thus secure a greater variety. One night he found his way into a neighbor's hen roost.



The great horned owl is one bird that I would not encourage in a bird preserve

There his true nature asserted itself. He killed seven hens, although he could eat but a part of one. So fully did he lose himself in his conquest that he was unable to find the opening by which he had entered the building.

When the owner came the next morning a surprise met his eyes. Seven dead hens lay upon the floor and a dignified owl surveyed the wreck. A heavy cane carried by the poultryman came down upon the head of the intruder with telling effect. Thus ended the strange career of a big bird that hunted within the confines of a city, instead of in the woodland where owls find a congenial home.



## *Chapter IX*

### **My Special Friends**

#### **The Kingbird—Warrior of the Air**

**T**HE kingbird offers one of the finest examples of courage with which I am familiar. He is one of the most fearless and independent of birds. Finding a lookout on the topmost branch of an Apple tree, he surveys the surrounding neighborhood and depends only upon himself. No attempt is made to hide his nest. It is placed in a situation that appeals to him without regard to exposure to the gaze of passing nest robbers.

A pair of kingbirds in a dooryard or orchard is likely to furnish such protection to smaller and weaker birds as they do not find otherwise. Let a hawk or a crow come near, and the doughty little warrior will immediately give chase. Hundreds of times have I seen these little birds attack intruders many times their size, but never have I seen any bird with the courage to resist. The kingbird flies so swiftly and strikes so fiercely that the big birds are no match for him. They find their only safety in flight, and get away as quickly as possible. At times, numerous small feathers will be seen dropping from the body of the pursued, as evidence of the effect with which the small tormentor strikes his enemy.

Even the house cat is likely to seek shelter before his attacks, and many a boy intent on taking the eggs has been driven from the nest by the fearless parents.

Here is one bird that asks no favors. He depends upon his own prowess to drive away enemies and catches his food upon the wing. Often few other birds are to be found in the vicinity of pioneer homes on the bare prairies of the West, where perhaps a single struggling cottonwood offers a perch and a nesting site. Although the kingbird is found over an immense region in both North and South America, it is a typical bird of the West. I have found it nesting in remote canyons in western badlands where no human habitation was to be found within many miles. A single stunted Willow was the only tree to be seen

and there it had taken its abode. I have found it generally distributed over the Canadian prairies and the wide plains region east of the Rockies, wherever a tree offered a view of the surrounding neighborhood.

How the settlers love these little birds which come to cheer their isolation and to protect the poultry from birds of prey ! But even the kingbird, boldest of our feathered neighbors, is not entirely free from misunderstanding. He is commonly called "bee martin" and thought to be an enemy of every beekeeper. Because beekeeping was my primary occupation for many years, I became interested in his food habits and gave attention to his behavior. My apiary was placed in the shade of the Apple trees and, as would be expected, the kingbirds always spent the Summer there. Since bees were present in large numbers, they furnished an abundant and ever-available supply of food. The kingbirds caught some, but in most cases, I think it was the drones which fell prey to them. However, I always felt that the presence of the birds was decidedly to my advantage, and that they rendered a far greater service than injury. We also keep bees at Sunset Ranch and the kingbird is likewise welcome there, where he seldom fails to make his appearance on time.

Whether you have a single tree or a large plantation, the kingbird can be expected to remain with you; and he asks only the privilege of looking out for himself.

### The Neighborly Robin

No other bird seeks the vicinity of man's dwelling so constantly as does the robin. The bird is a pioneer, extending its range to new regions as fast as settlement takes place. The author has been surprised to find them nesting about the homes of the settlers of the Peace River region of the far North, after finding few of them in the unsettled districts of the same region.

The robin asks little in the way of special inducements. The settler who has built his home on the wide prairie may expect him as soon as there are trees in which the nest might be built. Many a homesick and lonely housewife in a new country has been cheered by the morning song of the familiar robin.

While uncounted thousands of young robins have fallen prey to the marauding house cat, on the whole, the birds seem to have prospered because of their confidence in man. It is the most common of our native birds and it is probable that the protection from other enemies through its proximity to man's habitation has offset the danger from the pampered cats.



One of the first birds to arrive in the Spring and one of the last to leave in the Autumn, the robin is a universal favorite. The nest is likely to be placed in any convenient location, without regard to exposure. In cities and towns it may be close to a sidewalk where people are constantly passing. As this is written, there is a nest in the Wisteria vine beside my house within easy reach. A pair of robins have built a series of nests on the support of the overhanging porch of my study.

The bird is a familiar sight in every orchard and garden, and during the greater part of the year, is a welcome visitor. Its fondness for fruit at times causes some resentment on the part of the gardener who has but a single Cherry tree, or a small plot of berries. In large orchards and berry patches, the fruit is not so much missed. On my own



No other bird seeks the vicinity of man's dwelling so constantly as does the robin  
*Photo by F. W. Leubeck*





Three nests built by one pair of robins on the author's porch

grounds, as stated elsewhere, I have largely overcome annoyance by liberal plantings of Mulberry trees. The rich, ripe Mulberries satisfy him so fully that he is content with an occasional visit to the Cherries or Raspberries.

The robin renders a very real service to the gardener, for the young birds, which consume enormous quantities of food, are fed almost wholly upon insects. While the parent birds do eat fruit, their constant activity in the garden through a long season, earns for them a portion of the resulting crop. To my mind it is worth while to grow fruits as an attraction for the birds, if for no other reason. After the cultivated berries are gone, the robins feed to some extent on such wild ones as wild Cherries, Dogwood, etc. Cedar berries are eaten with relish at seasons when there are no soft fruits.

Since the robin is only to be found in the Southern States in Winter, those who would enjoy his presence at that season can satisfy his needs by planting Holly trees and China-trees. The berries of the Mistletoe also furnish a much relished food supply.

The author lived for five years in the Ozark region of southern

Missouri. The time was very short between the departure of the south-bound robins in late Autumn and the arrival of the early ones for the return journey. The first week in January would usually bring a large flock of robins which remained in the orchard until March when they moved northward. A few always stayed to rear their families and cheer us with their company through the Summer.

Perhaps the robin is the most popular bird because he asks for so little. He makes himself at home under almost any conditions. He enjoys the company of rich and poor alike. While he enjoys the privacy of the shrubbery on the elaborate estate of the wealthy, he is equally content with the stunted tree beside the humble dwelling. He would be sure to win in any contest as to the best loved bird.

### The Cuckoos

Among the most useful birds in the orchard and garden are the cuckoos. One or more species are to be found in most localities in the settled portions of the United States and Canada. The two species known as yellow-billed and black-billed cuckoos are very similar in size and appearance, as well as notes. Except for the yellow mandible of one and the black of the other, which distinction gives them their names, the white tips of the tail feathers which show plainly in flight with the yellow-billed bird are the most characteristic marking.

Feeding almost entirely upon insects, they render invaluable assistance. The service rendered is greater because they prefer the hairy caterpillars which few birds will touch. Tent caterpillars, Fall web-worms, tussock moths, army worms, and hawk moths are among the pests which they destroy.

To the farmers of my neighborhood they are commonly known as "raincrows," and there is a common saying that it will rain when their loud calls are heard. While they are silent for days at a time during dry and hot weather, I have never been able to tell that there was any connection with their calling and a change in the weather.

These birds belong to a group common to the tropics and only visit the northern states during the warmest period of the year. For many years the yellow-billed cuckoo arrived at my Iowa home on the same date, May 20th, each Spring. Rain or shine he came on that date, until I concluded that was his permanent habit. When I published a statement to the effect that this was the one bird whose date of arrival could be depended upon, he immediately changed and came at another time. A variation of several days in the time of arrival occurred in the years to follow.



**Blackbill cuckoo and nest**

*Photo by F. W. Leubeck*

The cuckoos are very shy and are often present in neighborhoods where they are seldom seen because of their habit of remaining hidden among the foliage of the trees. They are attracted to orchards and thickets on the borders of woodlands where insects are abundant and shelter is found. While they occasionally eat a bit of fruit, such as Mulberries or Dogwood berries, this appears to be but a chance occurrence, their dependence being upon animal food. They are known to eat at least 65 different species of insects.

The fragile nest is usually placed but a few feet from the ground in a bush or a low tree. It is poorly made and often so flat that the eggs roll out. It is similar in structure to the nest of the mourning dove and contains three or four pale blue eggs.

A thick growth of vines and thickets of tangled underbrush such as are sought by the catbird and brown thrasher, provide the kind of nesting places which are seldom overlooked by the cuckoos.

### **The Hummer, Smallest of Birds**

The presence of humming birds in the garden adds charm that nothing else can supply. These diminutive morsels seem throbbing

little dynamos of energy. In their small size, bright colors and quick motion, they combine qualities not found elsewhere.

This year I saw the first one feeding at my Columbine blossoms on Sunday morning, May 8th. Poised in the air before the flower, its wings were vibrating so rapidly that it appeared to be at rest.

I never cease to marvel at the grace of these little birds as they flit from flower to flower, sipping the sweets which they contain, and darting through the air like bullets as they speed away. Sometimes one will alight in the Honeysuckle vine and feed from the deep-throated flowers while at rest. More often the nectar is sipped while the bird is on the wing. With wings vibrating it settles before the pendant blossoms of the Columbine and inserts its long bill into the corolla in search of the riches which have been denied the bees for lack of facilities to reach them. I never tire of watching this feat and at times it seems that my eyes must deceive me, and that the bird must have some support. When its appetite has been satisfied it will alight on some nearby support and preen its feathers in the sun. If I am quiet it appears entirely unmindful of my presence, even though I am but a few feet distant, but the least movement will cause it to dart away like the flashing of sunlight through the trees.

The last humming bird of the season was seen sipping at the *Salvia* on the morning of the first white frost, September 21st.

There is but one species, the ruby throated humming bird, common to the northeastern states. The male is attired in such gorgeous colors as few birds acquire. The brilliant green back, tinged with bronze and the throat patch of flashing ruby red, as it darts from flower to flower in the sun, is a delight to the eye and an inspiration to the soul. No bigger than my thumb, I am amazed that such a tiny creature is able to escape the multitude of enemies which beset little birds and that it can find its way through the uncharted lanes of the upper air on the long journey to the balmy tropic countries where it spends the Winter months. Why it should care to risk the vicissitudes of such a long excursion to spend the short Summer season in my garden is a question not easy to answer.

In addition to the nectar which it sips so frequently, it catches countless small insects and spiders to give variety to its food. So minute are the insects which it takes that no one has as yet found out what important service it may render the gardener in their destruction. Some of the most serious insect pests are minute in size and consequently overlooked by the larger birds. Since it never does any harm, it is certainly worthy of every encouragement. The delight of watching its rapid and graceful movements is reason enough to want it near.



The nest, so cleverly hidden that it is seldom found, is a thing of beauty. Only about the size of a half dollar, it is made of soft material tied together with spiderwebs, covered with bits of lichen, and saddled on top of a convenient branch. The protest of the anxious mother when you come near may enable you to find it, but otherwise it will be a mere accident if you do. The two eggs are white as milk.

The hummers are among the easiest birds to attract. They are pugnacious little fellows in spite of their small size and much larger birds flee from their attacks. No matter whether we live in town or country they will come to us if we extend an invitation.

The one plant which seems most attractive to them is the Trumpet Honeysuckle. I have never failed to bring them when this plant bloomed beside my porch, no matter where I have lived. There are many other flowers which they love and which they visit with never-failing regularity, but the Honeysuckle seems to have been made especially for humming birds. Since both Honeysuckles and humming birds are common in nearly all parts of America, there is little reason why anyone outside the congested districts of the large cities may not enjoy their company.

At times I envy the resident of the Pacific Coast or the southwestern states, who may enjoy two or more kinds of humming birds. Their bright colors differ with the species, but otherwise they are much alike.

To keep the hummers with you throughout the Summer provide a succession of flowers which secrete nectar copiously. My Columbines and Trumpet Honeysuckles are open when the birds arrive in Spring and continue to bloom for several weeks. Later the other varieties of Honeysuckle come and then the Trumpetcreepers (*Tecoma*), which are likewise attractive to them.



Humming birds never fail to come when trumpet honeysuckle blooms beside my porch



In Midsummer, the Phlox keep them happy until the Trumpet Honeysuckle again comes into bloom. Petunias are also freely visited. The flower-lover is likely to have hummers whether or not he gives any thought to attracting them, for the mere presence of the blossoms is sufficient. While I enjoy four or more of these little beauties sipping at my flowers at one time, I can never have the large numbers found in the far west, where fifteen or twenty may be seen in a single Madrona tree. They do sometimes come to the blossoms of the Horsechestnut or Buckeye in small flocks.

### The Cardinal

Never did I see a cardinal at my boyhood home in western Iowa until father planted a windbreak of Red Cedar trees. After the trees reached a size sufficient to provide shelter for the livestock they also sheltered the birds, some of which had previously been strangers.

The cardinal loves thickets and evergreen groves. The Cedars provided shelter from the storms of Winter, and a secluded nesting place in Summer, as well as Winter food. The Cedar berries are often mentioned among the favorite foods of these birds. Not being migratory in their habits, they have remained in that neighborhood since that time.

With his brilliant red coat and his cheerful whistle, "keu, keu, keu," no more welcome neighbor greets us on the cold Winter mornings. Generally thought of as a southern bird, the cardinal is associated with the mocking bird in many a song and story of Dixieland. During recent years his range has gradually extended northward until, like the ducky, he now makes himself quite at home in many places where formerly he was unknown. From southern New York to eastern Nebraska and south to the Gulf Coast, it is quite possible to enjoy the favor of this popular song bird.

Seclusion is most attractive to the red bird, the name by which the cardinal is best known. With bushes, vines, and evergreen trees offering shelter as well as food, he makes himself much at home. The nest is placed low, seldom more than 10 feet above ground. As I write there is a nest not 6 feet from my study window in a Trumpet creeper vine. So cleverly is it hidden that folks passing by on the sidewalk less than 3 feet distant, can scarcely see it when it is called to their attention. Trusting to her seclusion, the mother bird will permit me to approach within a step of her hiding place. There are four speckled eggs in a cup-shaped nest made of fine twigs and tendrils, lined with grass and small roots. Here broods the patient little mother while her ardent mate whistles away cheerfully in a nearby tree.

Few are the birds which sing while on the nest. Entirely hidden from sight, this expectant mother rolls out her rich full notes, "wheat, wheat, feed the bird, feed the bird, feed the bird, wheat, wheat, wheat," in glad anticipation of the joy to come.

The source of the sounds are a puzzle to those who do not share the secret of the hidden nest. Unlike her brilliant colored mate, she does not offer frequent and constant concerts, but when she does sing, it is with even more musical and pleasing notes than his.

Surely it is worth while to offer inducements to such birds as these. The flashes of bright color as they move about, as well as the pleasing notes as they sing from early till late, pay big dividends.

Since the greater part of the food consists of seeds and wild fruits, they are of less economic importance than some other species. Fortunately, however, they are seldom accused of serious excursions to the cultivated fruits growing in nearby gardens. Occasionally, a few Blackberries or Raspberries are eaten, and Strawberries now and then, but seldom to a serious extent.

During the nesting season they feed the young principally upon insects and thus serve us well. Such wild fruits as Chokecherry, Blackberry, wild Grapes and Elderberry are eaten freely, but never have I heard anyone complain of their feeding upon the cultivated Cherries.

It is in Winter when so many of our feathered friends have flown, that the cardinal is most welcome. To insure his constant presence we should include in our planting such vines and shrubs as hold their seeds throughout the Winter months. Like many another, he loves a varied diet.

Among the vines, Virginia Creeper, Cathbrier and Bittersweet offer attractions at different seasons. Add to these such shrubs as Sumac, Hackberry, Holly and Dogwood, as well as the Indian Currant or Coralberry, so often called Buckbrush, and you have a combination which suits many other birds as well.

Cardinals were especially abundant in the thickets along the Mississippi River below my home overlooking the great power dam. On bright Winter days I could almost count on finding a dozen or more and sometimes several dozen. An ornithologist of wide observation in different parts of America assured me that he had never seen a place where so many cardinals were to be found together for long periods. The explanation is simple. There was a sentiment locally which protected them from destruction at the hands of careless gunners. Added to this there were extensive thickets and an abundant food supply.

The feeding box and the crumbs, thrown out with regularity during the cold months, will bring them to the porch or window day after day.

Those who are so fortunate as to have Tulip trees may expect these birds to find the seeds attractive for Winter diet.

The red-coated cardinal and the blue-coated jay give much of color and life to the gray Winter landscape when color is least in evidence. Once accustomed to their presence either would be greatly missed.

### The Cheerful Bobwhite

"Bob White, Bob White," what a cheerful call is this! To me the whistle of the quail is a most welcome sound. But give him a little encouragement and he is one of the friendliest of birds. He seeks only to do you good and has never been accused of any harmful practice. Just why so many individuals seem bent upon his extermination is hard to understand.

I once had a flock of these birds which made themselves very much at home on my grounds. They would come into the barnyard and feed with the chickens. The cock bird would whistle his "Bob White" from the fence posts and the entire family conducted themselves very much like a flock of barnyard fowls, seeming to feel that they belonged to the establishment.

There is a tragedy in such a condition. Once let them lose their fear of men and they are sure to fall before the gun of the first pot hunter who chances to pass. They were as easy to kill as my hens and of course they soon disappeared. I have never ceased to regret their loss, but have learned that it is not safe to have them become so tame.

In view of its high rank as an insect destroyer, one cannot understand the public conscience which will permit its destruction. Why for the payment of a dollar license do we allow gunners to go afield and shoot these birds as though they rendered no service? Living in the open fields in intimate contact with farm crops, the quail injures neither fruit nor grain. On the contrary he may eat a hundred or more chinch bugs at a single meal. Why do we not remember the great toll which chinch bugs have taken from our American farms? A thousand plant lice do not satisfy his appetite and he has been known to eat more than a hundred potato beetles for his dinner.

Cutworms, army worms, mosquitoes, white grubs, grasshoppers, squash bugs, in fact, nearly all the insect pests of farm and garden fall before his relentless appetite. He eats them at the rate of thousands a day and yet we take no notice. A pair of quail in the garden is worth more to the farmer than a hundred dollars in the bank, yet we give them little protection. It seems to me that in these days of constant spraying, dusting, and fighting to preserve a portion of our crops from

insects, nothing speaks so loudly of the lack of intelligence on the part of the American people as the treatment of our feathered allies.

Without the assistance of the birds which are constantly on the job, the fight against the insect hordes would be well nigh hopeless and it is doubtful whether man could even survive.

During the Winter months when insects are hard to find the quail lives from the waste grain scattered in the fields and upon weed seeds. The farmer is saved the trouble of pulling thousands of weeds which will never grow.

My estimate of the value of a pair of these birds is too low. The interest earned by a hundred dollars in the bank would not hire a substitute to pull the weeds nor kill the bugs disposed of by a pair of these birds and their growing family. How much is the quail worth, anyway?

### Quail Requirements

A suitable cover is the first requirement of the quail. He loves shrubby fields broken with briars and trees. It is not so much the large areas of underbrush that attract him as the conditions intermediate between forest and prairie with patches of shrubs and small trees. Here he can hide from the hunter and escape the keen-eyed hawk. On the approach of danger he can squat amid the chips and branches and melt from sight before your very eyes, seeming to be but a fallen leaf.

If only you can offer the quail such surroundings and security from his enemies, he will rear his family in your neighborhood and call to his mate from your back fence.

An example of attracting quail to most unpromising surroundings took place in the city of Madison, Wisconsin, a few years ago. Prof. A. C. Burrill, a member of the American Game Protective Association, became captain of the honorary game wardens. He lived in a section of the city where resided the fairly well-to-do class of tradesmen, teachers, and mechanics. A square mile of the residence district and cemetery was turned into a bird preserve and about twenty landowners were deputized as wardens.

As Italians living in the community had been in the habit of shooting indiscriminately, watchfulness was necessary to protect bird life. Many quail were brought in and released in the neighborhood. It was estimated that 500 young were raised to maturity in the city that season. To quote from Burrill:\*

"It was no uncommon sight to see a mother quail leading her covey down a back alley and slipping through a chicken fence or flying over

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\**Missouri Fish and Game News*, Nov. 1926.



it to the garbage can or rubbish heap to lead her young to hunt for tid-bits of food. Their song from the front gates at the city dwellers' rising hour, or from shade tree limbs along the street and cemetery walks was a welcome addition to the attractions of a nice residential district."

When Winter came grain was scattered about to provide food and inducements for them to remain about the dooryards of the city. When it was time for the coveys to disperse they heard the call of the wilder country, but it was felt that the experiment was a great success. It proved that where there is a concerted interest, quail can be reared in the wild state even in the cities.

Open thickets of such shrubs as Sumac and Elderberry and such small trees as Willows and Sassafras are most pleasing to them. They seek feeding grounds where they cannot be easily surprised and where cover is readily reached.

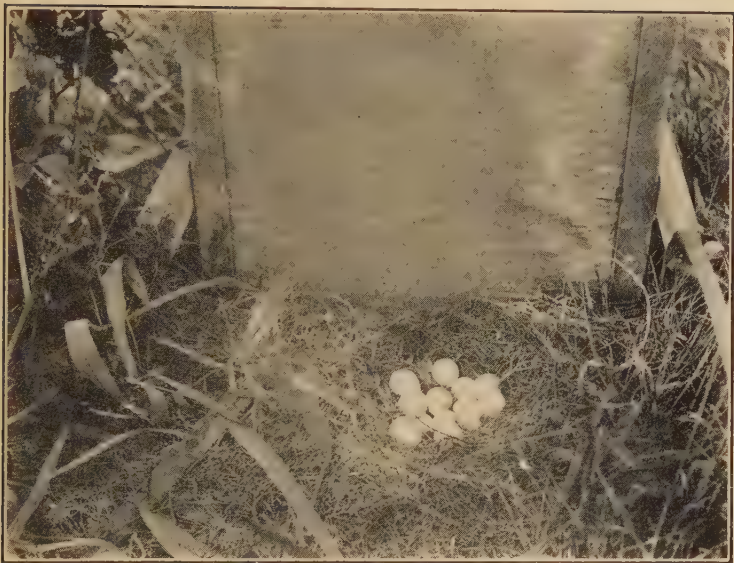
Times of deep snow are of special peril to the quail. They are often caught beneath the snow and smothered by its wet blanket, or starve to death because of their inability to find food. Instead of roosting in trees, they hover together upon the ground where they are often caught by prowling cats or skunks. They trust to their alert senses to warn them of danger, and to their ability to hide to save them from passing enemies.

It is well to provide low sheds among the bushes for sheltered feeding places where grain may be scattered for the Winter months. Such a food supply may also attract the rats, and care should be taken to discourage them.

During severe weather the birds seem to remain especially close to cover. Fear of enemies is probably the cause. At such times they feed upon ragweed and other coarse weed seeds, on scattered grain and such berries as Sumac and Rose hips. In planting, it is well to bear in mind that wild Roses and Sumac offer Winter food much appreciated by the quail. In the regions near the seacoast, Waxmyrtle and Bayberry serve a similar purpose. The berries persist all Winter and are available at a time when most needed. Quail also eat the seeds of the Pines as well as acorns, beechnuts and chestnuts. A liberal variety in the food supply is an important element in attracting them.

The nesting season is from May to July. The eggs are laid in a hollow in the ground which is lined with grass. From ten to twenty or more are laid in one clutch. Both birds take part in the incubation, but the female occupies the nest the most of the time and sits very closely. After the young have hatched, the entire family remains together until the following Spring.





Quail's nest under a beehive but a few steps from a farmhouse kitchen door

The nest is often placed in grain or hay fields where it may be destroyed by mowing machinery. A good ground cover, however, is likely to be occupied by these birds even in the vicinity of the house. The nest shown in illustration was under a beehive but a few feet from the door. Close-cropped lawns and neatly kept fencerows leave little cover for the quail. Hedges, thickets of shrubs and borders of hardy perennials are more to their liking.



## Chapter X

### More Friends

#### The Meadow Lark

**T**HE meadow lark is a bird of the open places. It builds its nest on the ground in the meadow where grass grows high, and arches it over in such a way as to conceal it from the eyes of the curious.

It is one of the few birds against which no fault can be found. It lives on insects and weed seed, supplemented with small amounts of scattered grain which it finds in the fields during the Winter season. It is essentially a bird of the meadows, feeding for the greater part on insects injurious to grasses. More than 25 per cent of its food for the entire year consists of grasshoppers and crickets, and these compose more than two-thirds of its food during the months of greatest abundance in Midsummer. Even when snow is on the ground it finds some insect food, but subsists upon weed seed when insects cannot be found.

Few birds ask so little as the meadow lark. It comes to the trees about the settlers' homesites to sing. On the open prairie where no trees are to be found it swings from a sunflower stalk or the coarse stem of a compass plant or rosin weed. It seems not in the least to care whether or not man be present. In well settled neighborhoods it makes the most of the situation and trusts to the good will of the folks who live near.

All my life I had been accustomed to the presence of the meadow larks in the country. When I came to town I was pleased to find that every Spring they came to sing in the trees about my home. The close-clipped lawns, however, offered no place to build their nests, and the number of cats left little hope of success for a ground nesting species. Illustration on opposite page shows how hopefully they adapted themselves to a difficult situation. Across the street from my home was a large lawn which was not mown. Within a few steps of the front door the birds made their nest, arching it over with grass as is their custom in the wild meadows. There they laid their eggs and began incubation. It was too much to hope that the young could be reared in such a situa-



Within a few steps of the front door the meadow lark made her nest, arching it over with grass

tion, but the incident proves that if it could be given security, even the meadow lark would become a bird of the small town, if not of the larger cities.

How different is the song of the eastern meadow lark from his western cousin, yet how similar they are in appearance. At my town home on the banks of the Mississippi River we see and hear only the eastern lark. Rarely have I heard the notes of the other there. Yet at Tamakoche, only three hundred miles farther west, we know only the western species.

The western meadow lark has a delightful song, full of rich melody. After knowing this one for so long, the attempt of the eastern lark sounds as though he had a cold and is a decided disappointment.

It is one of the early arrivals in March and its song is one of the first to be heard. With the robin it delights us when the first signs of

Spring are showing, and when such reminders are most welcome. Unfortunately, with the thinning of the numbers of larger birds, many hunters turn to the meadow lark for sport. It is trusting and easily approached, and the only hope of survival lies in its absolute protection. Once it becomes a general object of the chase it will soon disappear.

### The Mourning Dove

The mourning dove is one of those adaptable birds which seem equally at home on the prairies, in the woodland, or orchard districts. Like the lark, no fault can be found with it. Weed seeds, with the addition of waste grain picked up from the ground, furnish a constant diet throughout the year. Prof. Beal found 7,500 seeds of yellow wood sorrel in one stomach and 6,400 seeds of barngrass or foxtail in another. In a third more than 9,000 seeds of various weeds were found. When we remember the labor necessary to remove so great a number of weeds from our gardens or fields we should place a high value on the mourning dove, much higher in fact than the few cents represented by the value of its flesh as an article of food.

The peculiar mournful call which gives rise to its name is a never-to-be-forgotten sound. Where several pairs of these birds are nesting in a grove or orchard, one comes greatly to enjoy the frequent repetition of the soft and tender love song which carries for some distance. Al-



The mourning dove is an adaptable bird





Fragile nest of the mourning dove

though the notes are so simple as hardly to compose a song, few birds express so much of feeling.

The nest is very fragile and is often blown down by the wind, or upset by some chance misfortune. Although commonly found in orchard trees, in shrubbery and even in larger forest trees, clumps of Pines furnish favorite sites. The flat branches of evergreen trees furnish much safer retreats than the more open fruit trees. The birds are quick to recognize this fact and in such groves they will congregate in larger numbers than elsewhere in the neighborhood.

### The Orioles

One who appreciates good workmanship will never fail to be impressed with the nest built by the Baltimore oriole. It is deep and capacious, shaped like a gourd with a short neck. Woven of plant fibers and strings, it is much more durable than the nest of any other bird with which I am familiar. It is hung from the end of a drooping branch of an Elm or other convenient tree. The Elm is the favorite in my yard and seldom has a Baltimore used any other tree to hang the





The Baltimore oriole finds a favorite place for her nest at the end of the swaying branches of a large Elm tree

basket in which to rear its brood. The situation at the end of a swaying branch of a large tree provides safety from cats and squirrels. Apparently the eggs and young are very seldom disturbed while still in the shelter of the nest. It is doubtful whether even a snake could reach it.

I have seen these nests hang for several years, although the birds always build new each season. To watch the swaying of the branches with the precious nestlings during a heavy windstorm, gives one a bit of anxiety for fear they will be blown out, but I have never yet seen one fall. So skillfully is the material woven together and so securely is the nest fastened, that a maximum of safety is attained. In choosing the location for the nest, selection of materials of which to build it, and skill in fastening it in place, the Baltimore oriole displays intelligence of a high order.

Seldom do we find a collection of Nature's materials that does not contain an oriole's nest. And well may it be, for few more interesting objects are to be seen. I myself have had several that I took after the birds were through with them. One cannot but marvel at the ingenuity

with which the bird weaves the nest and ties it in place, with only its bill with which to work.

The brilliant coat of the male bird and his cheerful song endear him to every gardener. Feeding principally upon caterpillars which defoliate the trees, together with other noxious insects, he forages tirelessly, stopping now and again for a rolling song which I never cease to enjoy. The female is less conspicuous and less noisy, as well she may be, since upon her motherhood depends the succession of generations yet to come.

The Baltimore is partial to large trees, although it may be found now and then in orchards or groves where no large trees are present. The orchard oriole, on the other hand, likes the Apple trees better and builds her basket-shaped nest in the upper branches. The nest is made of fresh grasses, is shaped with a deep cavity and attached to small limbs from all sides. Occasionally, a larger tree such as an Elm or a Maple may be selected, but I find more orchard orioles building in Apple trees than in all other kinds put together. The nest is woven together with much skill, but is not equal to that of the Baltimore.

The bird is more somber in its dress and less interesting in its song. It spends its time constantly searching for insects among the twigs and leaves of the trees. It captures large numbers of plant lice and small caterpillars on the leaves and among the blossoms and fruit clusters in the orchard. Canker worms compose a large portion of the food when these insects are plentiful. Had we a sufficient number of these birds among our fruit trees, spraying would be less necessary.

### The Catbird and Brown Thrasher

These two favorites may well be considered together, since they both belong to the same family and are similar in their habits and requirements. Both are fine singers. In fact, I think it is doubtful whether any finer bird music is to be heard than the Spring songs of catbirds and thrashers. I love them both and would find it difficult to choose between them. Often the catbird will sing continuously for many minutes at a time in a most delightful manner. Again it may offer a strange mixture of notes, the calls of various birds, the cry of a lost kitten, and other sounds which can hardly be described. Probably there is no greater mimic than the catbird, not even its more famous relative, the mocking bird.

The song of the brown thrasher is equally fine, and when one has the pleasure of hearing first one and then the other as I have done for many years, it is still impossible to put into words any adequate descrip-

tion of their notes. The brown thrasher sings but for a few weeks in Spring, but while it lasts, his song is worth any necessary effort to secure the presence of the bird. While I enjoy the call of the mourning dove, the notes of the orioles and the warble of the vireos, the songs of these two birds offer nearly everything that the others do and much more. For years several pairs of each nested at Tamakoche and during the Spring and Summer there has been no lack of music at daybreak, at noon, and sometimes even at night.



The catbird seeks a tangle of vines or thick growth of shrubbery where the nest can be hidden from sight

*Photo by F. W. Leubeck*

ground. Usually from 3 to 6 feet is about the height of the situation chosen. The greater the tangle of vines or the thicker the growth of shrubs, the better the birds are suited. Where there are many such nesting places there is likely to be found a congregation of these birds, several pairs nesting within a comparatively short distance of each other.

Both birds like fruit and both destroy large numbers of insects. Mulberries, wild Cherries and Elderberries are attractive to them and compose a liberal portion of their food during the Summer months.

In the open woodlands these birds are likely to be found in somewhat different surroundings, for the catbird often seeks the bushes in marshy places and along the streams; while the thrasher seeks the woodlands on higher ground. With me both seek the same kind of nesting places. Both build rather substantial nests firmly placed in the dense growth of shrubs or vines where they are hidden from sight. Neither nest is likely to be placed very high above

### The Vireos

The vireos are really far more common than most folks realize. Because of their retiring habits and inconspicuous coloring, they are not well known to the rank and file of folks. All the vireos are insect feeders, highly beneficial in their habits and ought to be encouraged everywhere. They spend their time examining with minute attention the tips of twigs and the undersides of the leaves in the treetops and shrubbery. In the late Summer they vary their diet with a few berries, taken in small quantities. These, however, are wild and never do we hear complaint of depredations of the vireos among the cultivated fruits.

Several different species spend the Summer at Tamakoche and hang their small, cup-shaped nests from crotches of the shrubbery or small trees. The red-eyed vireo and the warbling vireo are perhaps the most common ones. The yellow-throated vireo is the brightest in its plumage and I greatly enjoy its song, "see him, hear him, see him, hear him, see him, hear him," repeated again and again with rising and falling inflection, which gives a very pleasing effect. These birds are attracted to locations where there are large areas of trees and are seldom found nesting where the growth is sparse or open. When the leaves fall from my trees in Autumn, a surprising number of vireo nests are sometimes revealed.



## *Chapter XI*

### Some Intruders

MAN, himself, is the most destructive agency that has appeared upon the earth. With the knowledge of how to control such forces as fire, explosives, and poisons, he becomes a menace to every living thing in which he does not see possibility of immediate profit. Other animals kill to supply their own needs for food or to protect themselves from supposed danger. Man kills blindly for the thrill of destruction, and blindly he must ultimately reap the results of his folly.

Unmindful of the law of compensation that requires full payment for every debt, he is following a path that will lead to his own destruction. The ever-increasing tide of insect life is threatening man's very existence. With all our poisons, gases, and mechanical devices, we are helpless against these small creatures whose rate of increase is such that a single pair will, if uninterrupted in their multiplication, soon number millions.

With the coming of such pests as the gypsy moth, we have found it impossible to meet the threat by means of our own unaided efforts. We must rely upon the assistance of other insects which are parasitic in habit, upon birds, and upon diseases which hold it in check.

It is amazing that in view of the history of the old world we go blindly in the course that has never failed to bring disaster. We forget that in portions of Asia, where once dwelt the world's richest and most powerful nations, there now remain but fragments of a poverty stricken people. The waste of water, the destruction of forests and lack of appreciation of the balance of life's forces, undermined and destroyed their civilization.

Here in America, a few are raising their voices in protest against a general campaign of destruction. It has taken a great fight to save a remnant of our forests, and drainage of our marshes goes forward without hindrance. Our technical schools are training a large number of men who see in any body of water only a job for an engineer. They know little of the value of the land to be reclaimed for agriculture or



the possible effect of the changes on the community at large. Drainage has become a popular enterprise for promoters, with the result that many areas have been drained to the serious detriment of the public.

Not only have the breeding grounds of many fur-bearing animals and water birds been destroyed, but the reclaimed land, in many cases, has been unsuited for the purposes to which it has been put. Losses have been heavy and the agriculture of the surrounding region greatly injured from the changes of water table under the soil. Now there is agitation to attempt restoration of the original condition, since it has been found that the marsh was worth more than for other purposes.

Again the straightening of many small streams has the effect of passing the problem of overflow on to the other fellow lower down. Each in turn tries to do likewise, until it reaches the man with no such opportunity. This action in the case of so many tributaries of the Mississippi has been one of the factors in causing the disastrous floods of 1927 which aroused the sympathy of the civilized world.

There is great need that all drainage projects be studied by experts other than those whose only knowledge has to do with ways and means of removing the water. If we are to have game and fur-bearing animals, breeding places must be provided. If we would avoid floods, natural storage reservoirs must be maintained. If we would avoid droughts, provision must be made to retain a reserve supply of water in the soil. Too much drainage affects every one of us adversely. The loss of bird life is thus only one of the resulting items of damage.

When we remember that large animals which once roamed the earth in numbers have been displaced by other forms, it is not unreasonable to expect that even man himself will one day give way before the rising tide of insects.

### The Bird Lover's Problem

When an individual sets up a refuge for wild birds in a small area, he can quickly see the result in increased numbers of songsters which take advantage of the protection. With more birds, there is also an increase in predatory species, and some attention is necessary to prevent the undue increase of these.

My greatest problem has been the cats. The cat has survived man's destructive tendencies by associating herself with him. She warms herself at his fireside and takes advantage of the assistance which he offers in the provision of a plentiful supply of food. The bird-lover must take some steps to restrain the animal. A loose roll of wire screen placed around trees in which birds are nesting, to prevent cats from climbing, is helpful.



I have encouraged red-tailed hawks to nest in my trees

### Birds of Prey

Most of the birds of prey feed principally upon rodents and insects and thus render a real service to mankind. They may be regarded as useful, although an occasional song bird may be taken. For this reason I have encouraged screech owls, sparrow hawks and red-tailed hawks.

There is one, the Cooper hawk, which pursues the birds without rest, and which is so destructive that no good word can be said for him. I once shadowed a family of these birds for several weeks and took note of their activities. The nestlings were fed on such delicacies as poultry, pigeon, quail, flicker, robin, or thrush. A single family in a neighborhood caused great losses to poultry and wild birds. The details of my acquaintance with this destructive bird have been told in another book "Our Backdoor Neighbors." The sharpshin hawk is of similar habit.

These hawks are extremely shy and hard to catch. One will come into the grove so silently that his presence will not be detected. Sitting motionless on a high limb in a tall tree, it will watch the movements of

the birds that congregate there until an opportunity offers to catch one unaware. Striking unexpectedly, it takes its victim by surprise, and dashes away.

One must have much patience to wait with a gun until opportunity offers to shoot the marauder. If the nest can be found and destroyed, it may be driven from the neighborhood, but this only serves to pass the injury on to another place.

Although we once had a great horned owl for a pet, as told elsewhere, the bird is hardly to be encouraged in a bird preserve. It is too destructive to make its presence desirable.

With the bluejays and others which sometimes annoy one by pilfering nests, I have made it a rule to deal with each individual. A nest-robbing jay will soon arouse the antagonism of the peaceful birds, and they will raise a great commotion when he visits the vicinity of the nest.



The Cooper hawk is so destructive that no good word can be said for him

One is fully justified in destroying the nest-robbing individual, but I have never felt like driving all the jays from my grove. They add a touch of color otherwise lacking, and the individuality which they display makes them of especial interest to me.



Nest robbing fox squirrels are not very common

I have seen a fox squirrel rob the nest of a rose-breasted grosbeak amid great protest on the part of many birds. Such a squirrel should be shot. However, my impression is that nest-robbing fox squirrels are not very common, for I have had them in my grove for many years and have observed few such incidents. The red or pine squirrel is much more inclined to rob nests, and where these little mischief-makers are common they offer quite a problem. Minks and weasels are also very destructive.

### English Sparrows

The English sparrow has some redeeming traits and in some situations may be tolerated or even encouraged. It makes itself at home in a dreary environment where few other birds are content to remain. In the congested districts of the large cities the English sparrow is about the only bird, excepting the domestic pigeon which is to be seen. In such a neighborhood, the sparrow is a very welcome guest.

In a bird preserve like mine, however, he makes himself a nuisance because of his perversity for a fight. When English sparrows are present in numbers, such birds as bluebirds, phoebes and barn swallows, retire. It is necessary to keep after the sparrows and make it so uncomfortable for them that they seek other neighborhoods. The United States Department of Agriculture has issued a bulletin, for free distribution, giving many suggestions for dealing with these pests. Various baits, traps, etc., are described. Personally, I have found the only effective methods to be trapping and shooting with small-bore rifles and shot shells. Shooting should never be intrusted to those who are not well acquainted with the various species of birds, since song sparrows, female rose-breasted grosbeaks and other birds are often mistaken for English sparrows.



I have found one of the traps commonly advertised in the bird magazines to be effective. It is necessary, however, to watch it carefully to avoid loss of an occasional bird of desirable species which sometimes gets caught. Wrens, thrushes, etc., will get into the trap now and then, and must be released quickly to prevent injury by frantic endeavors to escape.

### Disturbing Elements

Discordant elements will present themselves into the best regulated garden at times, but the keeper must not be too quick to judge harshly. The eat or be eaten chain of Nature has been of such long standing that it cannot be entirely eliminated. We must expect a certain amount of conflict among the occupants of our refuge. We must make conditions as favorable as possible for the survival of the greatest number of individuals and tolerate some degree of disturbance of our ideal. If we start in to remove every individual or species that shows destructive tendencies, we will have few left when our task is finished. Even the happy little house wren will pierce the eggs of other birds whose nests are built too near her own. Some bird lovers get excited when such things happen and advocate the expulsion of the wren. I have had



Discordant elements sometimes appear in the best regulated gardens. The mink is very destructive

*Photo by F. W. Leubeck*





I feel that snakes have a place in the scheme of things which I am trying to preserve

as many as a dozen families at one time, and always felt that they were among my most worth while tenants.

It annoys me greatly to find a snake eating the young from a cat-bird's nest, but I hesitate to set out to destroy all the snakes. I feel that they have a definite place in the scheme of things which I am trying to preserve. Likewise I have permitted a few skunks to remain, although I know that skunks sometimes eat eggs from the nests of ground birds. Their food consists mostly of mice and insects.

### The Crow

With all his mischief, I like the crow. As a tenant, I am sorry to admit there is not much that I can say for him. He is a wily old bird and well able to look out for himself. I have always been inclined to give every wild creature a fair chance about my premises. Hawks, owls, skunks and crows have all been permitted to stay until they proved themselves unworthy of my protection. The crow was quick to recognize the fact that he was safe within my preserves, but he

repaid my friendship by eating my turkey eggs. Sitting calmly in a treetop he would watch the turkey hens as they went to their nests. As soon as they left, he would fly down and eat the eggs. So persistently did this continue that I had to give up raising turkeys.

Evidently the word was passed along among the crow tribe that Tamakoche was a desirable residence district, for soon there was a regular crow roost among my trees. Hundreds of them came at twilight to spend the night. It was impossible to take an accurate census of the number of the birds present, but it was common talk among the neighbors that they came by thousands. Thus do birds respond to a favorable opportunity, the undesirables along with the others.

As I have said, I have long admired the crow. I admire the intelligence of a bird which is able to avoid the numerous traps set for his destruction. To survive in a hostile country requires that he make good use of his brains. Hunting parties hold contests to see which side can kill the most crows and thus be entitled to a dinner at the expense of the others. Traps are set, poisoned baits are put out, his nest is destroyed; in fact, every scheme that the ingenuity of man can devise is laid to encompass his downfall. In spite of it all the crow seems to thrive. In a prairie region like western Iowa there are not many places where his nest can be hidden, but he manages to find some. He keeps at a safe distance from the guns and avoids the traps. His rate of in-



I have permitted a few skunks to remain, since their diet consists mostly of mice and insects

crease seems ample to replace such individuals as fall a prey to his enemies. In the meantime he renders a service to the farmers by feeding upon grub worms and field mice, while he robs the hens' nests, catches the young chickens, and rifles the nests of birds.

Evidently, my opinion of the crow will make but little difference, for he seems to be quite equal to looking after his own interests without any help from me. My experience, however, is such as leads me to suggest that in order to make the greatest success of the bird preserve, the crows be led to seek haven elsewhere.

I do not, however, endorse the general destruction of the crow. Aside from his nest-robbing proclivities, he fills a very useful place in the economic balance of wild life. Bounties offered for his destruction, in my opinion, are a mistake. In neighborhoods where his mischief becomes intolerable, let vengeance take its course. Personal interest will provide a sufficient incentive to drive him out.

On my grounds, the kingbirds or tyrant flycatchers keep a weather eye out for him. They are entirely too quick on the wing for any large bird. After a few dashes at the crow and the loss of a few feathers from their sharp beaks, the old black villain seeks more congenial surroundings and flies away as fast as his tormentor will permit.



With all his mischief, I like the crow

## *Chapter XII*

### Suggestions for Planting

**A**S I write this on a very cold December morning, a pair of bluejays are feeding on wheat at my box and a downy woodpecker is eating suet from the holder on my window sill. A cardinal is waiting for the jays to finish their breakfast so that he may take his turn. Three chickadees follow the downy woodpecker to the suet. Very little is necessary to bring a few birds to almost any location. To bring a long list, however, requires study of the conditions under which they live, with means to establish such an environment.

Some birds are adaptable and feel at home almost anywhere. Others are exacting in their requirements and will remain only in a very particular kind of environment. The robin, as an example, is adaptable. It is known to eat forty different kinds of wild fruits; it nests in a great variety of trees, on porches, ledges or any convenient situation. The pinon jay, on the other hand, is so closely associated with the pinon pine that it has taken the same name. Some insect-feeding birds seek a particular type of location and are seldom found even a half mile from it. The orchard oriole is typical of the orchard and has been named accordingly.

The wood thrush likes the quiet shadows of the deep woods and its ringing notes at dusk are to be heard only from the vicinity of the woodland. The towhee or chewink likes an open parklike situation where there are tall trees interspersed with thickets and clumps of weeds and briars. With close-cropped lawns and well-kept grounds there will be no towhees. They like the pastures bordering on the woods. Bronze grackles gather where evergreen trees provide nesting sites near to water. If there are no conifers they will nest in the Maples, but much prefer the Pines.

Catbirds and thrashers love thickets and dense shrubbery and their nests are usually to be found in the Lilacs, Gooseberries or dense growth of such vines as Greenbrier or Virginia Creeper. The cardinal likewise seeks a convenient place for its nest where it is hidden from sight of the curious.



One who would have a great variety of birds must furnish a similar variety in his surroundings

The greater the variety of trees and shrubs which one can plant and the greater the diversity in their arrangement, the larger the number of birds which will come to him. One who has sufficient room to indulge his fancy is fortunate, for trees and vines offer much of interest in themselves in addition to the birds which they attract.

In selecting trees to plant, it should be remembered that while the fruit attracts the largest number, some birds come for other reasons.





The crossbill lives almost exclusively in the tops of tall conifers

The rose-breasted grosbeak eats freely of the staminate flowers of such trees as Oaks and Walnuts. The humming bird comes only to such flowers as offer a rich supply of nectar and the minute insects which they find with it. Some birds habitually seek certain trees in search of particular insects of which they are fond. The California bush-tit thus visits the Olive trees in search of the olive scale.

The prothonotary warbler is seldom found except where the Willows line the banks of a pond or stream. They nest in some hollow stub, in a cavity that perhaps may have been previously occupied by a chickadee or downy woodpecker.

There is room for much study of the dominant factors in bird life—food, shelter and protection as applied to any particular locality. Birds like the kingbird, which seek the top branches of isolated trees and catch their food on the wing, are suited with entirely different conditions than are required by the quail, which prefer to feed near to cover where they can quickly hide from approaching enemies.

The crossbill, which lives almost exclusively in the tops of tall conifers, where it depends upon the seeds for food, is hardly to be attracted by any other environment. In contrast, the white-crowned sparrow and fox sparrow are dwellers in thickets throughout the year and feed mostly on the ground.



In the northern states no country place is complete without Apple trees

The goldfinch loves to tear the seeds from the heads of thistles and dandelions and other weeds which are not encouraged by the careful gardener. Clumps of sunflowers which are left standing after the frost kills the leaves, will serve to attract this class of birds.

The Hutton vireo of California is an example of a bird which restricts itself almost entirely to one tree—the Oak. Seldom is it seen except in one or another of the Oak trees. The Calaveras warbler of the same regions feeds in the Oaks and Maples, but places its nest upon the ground.

Some birds which feed almost exclusively upon insects during the greater part of the year depend to some extent upon fruit and seeds in Spring and Autumn. The vireos are examples of this group. They search the twigs and foliage of trees and shrubs constantly when insects are abundant. At other seasons they eat a variety of wild fruits in small amounts. Wild plants such as Snowberry, climbing Bittersweet, and Indian Currant whose berries hang on for long periods of time, serve many a hungry bird when animal food is scarce.

In the following pages brief notes are given concerning some things commonly planted with suggestions as to the special attractions which they offer to the birds. The list could be greatly extended but it includes some plants suitable for any part of America.

*Apple*—There is a large area of the northern states and Canada where no country place is complete without Apple trees. The Apple is the universal fruit in the region where it grows. The tree serves very well for shade where space is limited and when in bloom is very ornamental.



The wild Crab Apple is a beautiful tree when in bloom

The wild Crab Apple, which is native to eastern America, is similar in growth and appearance and is strikingly beautiful during its blooming season. Where space is available it should always be included.

The Apples are rather neutral trees as far as birds are concerned. Many birds find congenial surroundings among their branches, but most of them would like other trees as well. Robins, kingbirds, rose-breasted grosbeaks, orchard orioles, and yellow warblers commonly nest

in the Apple trees. Of these only the orchard oriole and, to a lesser extent, the rose-breasted grosbeak seek them in preference to others for home building. Several warblers search the foliage, leaf by leaf, for plant lice and other insects.

The fruit is eaten by a few birds such as robins and woodpeckers. The bobwhite pecks at the fallen fruit. The prairie hen and the ruffed grouse eat the buds. At times when the West was new and orchards small, the prairie hens did some damage because of their numbers. However, the prairie hen is now a vanishing bird and few will have the pleasure of seeing them eating buds in the Apple trees. In some neighborhoods in wooded regions the ruffed grouse is still common.

*Apricot*—In general, what has been said about the Apple applies to the Apricot in its relation to birds. In California, the fruit is eaten by Bullock's oriole, California jay, western tanager, black-headed grosbeak and birds of similar habit. The California jay, at times, becomes rather destructive to the fruit in the orchards.

*Barberry*—The common Barberry introduced from Europe is no longer considered desirable for planting, because it harbors rusts attacking wheat. For this reason there has been a very general attempt at its eradication.

However, there are several other species commonly cultivated which are very attractive to birds. The triple-leaved Barberry of Texas, commonly called Agarita, the Oregon Grape of the Northwest, the California Barberry and the Japanese Barberry are all worthy of consideration. The Japan Barberry is very generally used in ornamental planting. Its abundant red berries hang on during the cold months when they are most appreciated by the Winter birds.

Among the birds which eat the fruit of the Barberries may be mentioned robin, ruffed grouse, cedar bird, crow, flicker, bluejay, pine grosbeak, quail, white-throated sparrow and hairy woodpecker. Some of the vireos which seldom take fruit during the Summer months eat the berries during Autumn or Spring.

*Bayberry (Myrica)*—There are several of the Bayberries. The Wax-myrtle is a small evergreen shrub common to the eastern states. The California Bayberry is a compact tree found from Puget Sound to California.

The fruits are attractive to numerous birds; such birds as quail, blackbird, chickadee, flicker, ruffed grouse, robin, song sparrow, hairy and downy woodpecker, and numerous others are known to eat the fruit. It is worthy of mention that the heath hen which is so near to



extermination, eats Bayberries. The thrushes are well known consumers of this fruit. At least five species of vireos, which depend mostly upon insects, include Bayberries in their diet at some season of the year.

*Beech*—Beechnuts are eaten by red-headed woodpecker, bobwhite, ruffed grouse, crow blackbird, etc. The rose-breasted grosbeak eats the buds.

*Bittersweet*—The climbing Bittersweet or Waxwork (*Celastrus scandens*) is a splendid ornamental for covering trelliswork, rocks or arbors. It will grow in almost any situation whether in sun or shade, and is very hardy. The bright colored berries are attractive after the leaves have fallen and are much used for decorations. It should be included in every list of climbers where birds are desired. Among the birds which eat the fruit may be mentioned bluebird, several thrushes, bobwhite, ruffed grouse, downy woodpecker, etc.

*Birch*—The Birches are ornamental trees which are very generally cultivated. The ruffed grouse and sharp-tailed grouse feed commonly on the buds.

*Blackberry*—The Blackberry is one of the most popular fruits with our wild birds. The plant yields so abundantly that what they take is seldom missed in the garden, although dozens of different birds feed upon the fruit. Grosbeak, robin, catbird, tanager, cedar bird, brown thrasher, mocking bird, wren-tit, several species of thrush, king bird and bronze grackle may be mentioned among its visitors. Even the vireos sometimes indulge their taste with Blackberries. The bobwhite often seeks the Blackberry thickets for cover.

*Blueberry*—The Blueberry is another fruit which is appreciated by a long list of feathered visitors. According to W. L. McAtee, 67 different species are known to eat Blueberries. To list them would be merely to name all the fruit-eating species common to the region where the berries are found.

*Buckthorn (Rhamnus)*—Here we may include all species of *Rhamnus*, including not only the common Buckthorn but also the red-berry, coffee-berry, and the cascara of the Pacific Coast. The Buckthorns are handsome shrubs with bright green leaves and small greenish flowers. The berrylike fruits are found in small clusters. The list of these shrubs is an extensive one, and there is some form available for almost any part of America. The fruit is very attractive to thrushes,





The Buckthorns are handsome shrubs whose berry-like fruits attract many birds

mocking birds, robins, etc. In California, several of the thrushes are reported as fond of the berries of cascara and coffee-berry. The black-headed grosbeak is partial to this shrub as a nesting site.

*Buffaloberry*—The Buffaloberry is a hardy shrub native to the cold and wind-swept plains and thrives in the dry regions where the list of ornamentals is restricted. The acid berries, which are like Currants in appearance, are attractive to several species of birds. These shrubs are of easy culture and well adapted to

dry and sterile places where few plants will succeed. They withstand great extremes of drought and cold and are worthy of more extended cultivation. Since there are staminate and pistillate forms, it is necessary to plant in clumps to insure fruiting.

*Catbrier*—The Catbriers or Greenbriers are not desirable as ornamentals, because of their thorny nature. However, when given a place in woodlands or waste places they provide fruit which is relished by dozens of different birds, including the thrushes, cardinal, white-throated sparrow, bobwhite and ruffed grouse.

*Cattail*—Wherever there is a boggy spot or shallow, still water, the Cattail offers interesting possibilities. A Cattail marsh is attractive to a number of birds not likely to be found otherwise. Rails, marsh wrens and red-wing blackbirds and sometimes yellow-headed blackbirds will frequent such a spot. The long-billed marsh wren makes its nest of dead Cattail leaves, grass, and similar material. While the short-billed

marsh wren may be found in a damp marsh of small extent, the long-billed marsh wren is more commonly found where the areas are larger. Rails and sometimes coots or grebes will be content in rather small areas when undisturbed. The red-wing and yellow-headed blackbirds hang their nests in clumps of cattails or rushes, where they find conditions quite to their satisfaction.

*Cascara*—See Buckthorn.

*Ceanothus*—See Mountain Lilac.

*Cedar (Juniper)*—One or another species of Cedar is found from Maine to California, and in each locality the common birds of the region may be expected to congregate in these trees. The Red Cedar is among the most useful in attracting wild birds. Food, shelter and nesting sites are all found here. Robin, grosbeak, flicker, purple finch, bluebird, mocking bird, cedar wax-wing, and dozens more come to them for the berries which furnish food in abundance throughout the year. Mourning dove, cuckoo, purple grackle and robin are representative of the long list which nest among the branches. In Winter, the jay, cardinal, and junco, as well as owls, seek its shelter from the storms.

Numerous birds of the West Coast are known to find food and shelter from the incense Cedar. The Townsend solitaire and other thrushes feed extensively upon the fruits of the Junipers.



Chamise grows in dense masses and furnishes good cover for ground-loving birds. The small flowers crowded in dense masses are quite desirable

*Chamise* (*Adenostoma*)—The Chamise or Chamisal of California is frequently called Greasewood. It is a low evergreen shrub with somewhat resinous herbage and grows in dense masses on mountain slopes and ridges. It has small flowers crowded in masses. Several birds frequent the Chamise areas. Such birds as quail seek its cover, while the wren-tit and western gnatcatcher and others of similar habit nest in its branches.

*Cherry*—That cultivated Cherries are attractive to birds is apparent to every grower who raises the fruit for market or for home use. To list the birds which eat Cherries would leave out few song birds. As has been stated elsewhere, Mulberries should be planted near commercial Cherry orchards to save the fruit. One with little space who wishes to provide food for both table use and for the birds will find no better fruit than the Cherry.



The blossoms of the Chokecherry and other wild Cherries make them desirable for ornamentals, while seventy-four species of birds are known to eat the fruit

There are several varieties of wild Cherries, Chokecherries, etc., which are of little value except for the birds. McAtee lists 74 species of birds as eating the fruits of the wild Cherry. Some of the smaller kinds like the Chokecherry offer many attractions as ornamentals. When in bloom the masses of white blossoms make a pleasing show, combining well with other shrubbery as a background for the hardy border.

The orioles, grosbeaks, thrushes, finches, vireos, woodpeckers, doves, and even flycatchers, are

included in the long list of patrons of the wild Cherry fruits.

*Chestnut*—The Chestnut is a fine tree for shade as well as nuts, where there is space for its proper development. A few birds such as the jay, bobwhite, ruffed grouse and crow blackbird eat the nuts.

*Coffee-berry*—See Buckthorn.

*Conifers*—Nearly all the conifers are valuable for ornament, while serving the birds for both food and shelter. See Cedar and Pine.

*Cottonwood*—The Cottonwood is a tree of rapid growth which reaches a large size. It is especially valuable in the plains region where there are extremes of wet and drought, heat and cold. It offers attractions to a rather limited list of birds. The purple finch and ruffed grouse eat the buds. Warblers search vigilantly among the leaves for insects, while a few birds, like the kingbird and robin, nest in its branches.

*Currant*—There are several species of Currant which are useful as ornamentals while at the same time attractive to birds. A few birds eat the cultivated Currant, although complaint of damage is less often heard than with other garden fruits, as the berries ripen when food is plentiful.

The flowering Currants attract humming birds as well as butterflies and moths. Among the birds which eat the fruit of the various Currants may be mentioned the brown thrasher, several thrushes, grosbeaks, red-eyed vireo and crow blackbird.

*Deerbrush*—See Mountain Lilac.

*Dogwood (Cornus)*—The Dogwoods are a very desirable group of ornamentals. The numerous species vary in size to fit any kind of situation. They are very ornamental in flower, and few wild fruits attract such a variety of birds; including woodpeckers, thrushes, cuckoos, grosbeaks, sparrows, vireos, blackbirds, and such game birds as quail and ruffed grouse.

*Elderberry*—Excepting only the Mulberry, the Elder is perhaps the best of the wild fruits for the attraction of birds. More than one hundred different kinds of birds are known to eat the fruit and when grown in dense clumps many species nest among the branches. Catbirds and other species which seek secluded nesting places, often hide their families in a clump of Elder. Once established, the Elder is very persistent and will last for many years. It has but few natural enemies and is very attractive in fruit, flower and foliage. It might very well be used to a much greater extent in ornamental planting. It thrives best in a partly shaded situation where the sun strikes it some part of the day, although it does well in the open.





The Elderberry is highly desirable as an ornamental when in flower and its fruit serves for food for many kinds of birds

The bloom is white, in large corymbs, and appears in late Spring or early Summer. It is followed by small berries of a red or black color and sweet, insipid taste. The fruit is very abundant and seldom fails. Some species of Elder are wild over much of North America and can be grown in almost any section of country whether in the eastern states, in California or the desert of Arizona.

*Elm*—The Elms are among the finest of shade trees. They are of comparatively rapid growth, withstand neglect and are symmetrical. Well-grown specimens are among the most beautiful of trees. They live to great age and have few natural enemies. The Baltimore oriole, one of the most beautiful American birds, associates itself closely with the Elm. It hangs its nest near the end of a swaying branch where it is difficult of access to the common enemies of song birds. The oriole



feeds principally upon leaf-eating caterpillars. A few birds, including the prairie hen and the rose-breasted grosbeak, feed to some extent upon the buds of the Elm. The removal of a small percentage of the buds serves as a pruning process and, in many cases, is an advantage to the tree.

*Fig*—Those who live where it can be grown will hardly neglect the fig, even though it apparently is attractive to few birds. The fruit is occasionally eaten by California linnet, mocking bird, black-headed grosbeak, some of the thrushes, and a few other birds.

*Grape, Wild*—There are many species of wild Grapes, some of which are to be found in nearly every state. They are usually found along streams and in moist woodlands where they climb tall trees. Wild Grape vines add an attraction to grounds where there is room to develop wide variety. If trained over a low trellis, a dense growth may be obtained which furnishes ideal hiding places for birds which love to nest in such situations.

The fruit is eaten by a great many kinds of birds, although not so many as prefer the Elderberry and the Mulberry. More than seventy species are known to feed upon the berries of wild Grapes. Most of the common fruit-eating species are included, such as kingbird, robin, mocking bird, woodpeckers, cardinal, quail of several species, thrushes and flycatchers. Several species of the vireos which are industrious seekers of insects, are also attracted to the fruit of the wild Grapes.

*Hackberry (Celtis)*—There are about sixty species of Hackberries which are widely distributed trees, native from Canada to Central America. The irregular wartlike ridges on the bark of old trees and irregular branches are distinctive features. They are valuable shade or specimen trees and will thrive in almost any soil and are particularly valuable in dry situations.

Among the forty species of birds which feed upon the fruit of the Hackberry trees may be mentioned cardinal, crow blackbird, phoebe, cedar waxwing, mocking bird, bluebird and brown thrasher. The Townsend solitaire of the Pacific Coast, which is a shy bird rarely found in settled neighborhoods, is attracted by the fruit of this tree.

*Haw (Crataegus)*—The red Haw is a compact tree of attractive form and beautiful flowers. It is a very desirable ornamental and serves well as a specimen tree where large size is not desired. Its small red fruits are produced in great abundance. The number of birds which eat the fruit is smaller than with several others, but quail, grouse, cardinals, robin, purple finch, pine grosbeak and several other species feed upon it.

*Holly (Ilex)*—There are more than twenty species of Holly. Some are particularly desirable for ornamental planting in the milder sections

of America. They are hardy from southern New England to southern Illinois and Missouri. The persistent berries hang for most of the year and furnish a dependable supply of food for the birds at all seasons. McAtee states that forty-five species of birds are known to eat Holly-berries, including quail, grouse, flickers, waxwings, mocking birds, cat-birds, thrushes, robins and others common to the vicinity of farms and gardens.

*Honeysuckle (Lonicera)*—Bailey lists fifty-three species of Honeysuckle now in cultivation. The smallest garden is incomplete without at least one Honeysuckle. Both shrubs and vines are included in the group, which is attractive for foliage and flowers, as well as fruit. Chipping sparrows hide their nests in the dense masses of Hall's Japan Honeysuckle beside my house. The semi-evergreen leaves are of a rich green which remains long after most Autumn leaves have fallen.

The Trumpet Honeysuckle is particularly attractive to the humming birds which never fail to visit the blooms. There is a long blooming period in Spring and a shorter one in September.

Not so many birds eat the berries of the Honeysuckle, but a sufficient number are attracted to make it worth planting. The song sparrow and white-throated sparrow, several species of thrushes, quail, grosbeaks, catbird, brown thrasher and robin are representative of the birds attracted by the fruits of the Honeysuckles. The twin-berry of the West is sought by the wren-tit, the russet-back thrush, and other birds of the Pacific region.

*Huckleberry (Gaylussackia)*—The Huckleberries are low shrubs of little decorative value. They grow best in shady situations on sandy or peaty soils and may well be added to extended collections of plants for their fruit which is eaten by such birds as quail, ruffed grouse, crow blackbird, crested flycatcher, thrushes, towhee, pine grosbeak and robin.

*Indian Currant or Coralberry (Symphoricarpos)*—The Indian Currant, commonly known as Buckbrush in the Middle West, is worthy of more common use as an ornamental. It is entirely hardy and will thrive on rocky hillsides and dry places where less vigorous plants die. The abundant masses of red berries, which hang during the Winter months, lend a special attraction, as well as serving a never-failing source of Winter food for the birds.

*Juneberry or Serviceberry*—The Juneberry bushes are grown for their profuse blossoms as well as for their fruits. Various common names are applied to this group which is widely distributed in eastern America. In Western Canada, *Amelanchier alnifolia*, is commonly known as Saskatoon. It is very abundant in the bush of Manitoba,

Saskatchewan and Alberta, where also it is cultivated as a garden fruit. The Juneberries are very hardy and withstand dry weather well. A long list of birds might be named which eat the fruit, including most of the common ones already mentioned in connection with numerous other shrubs.

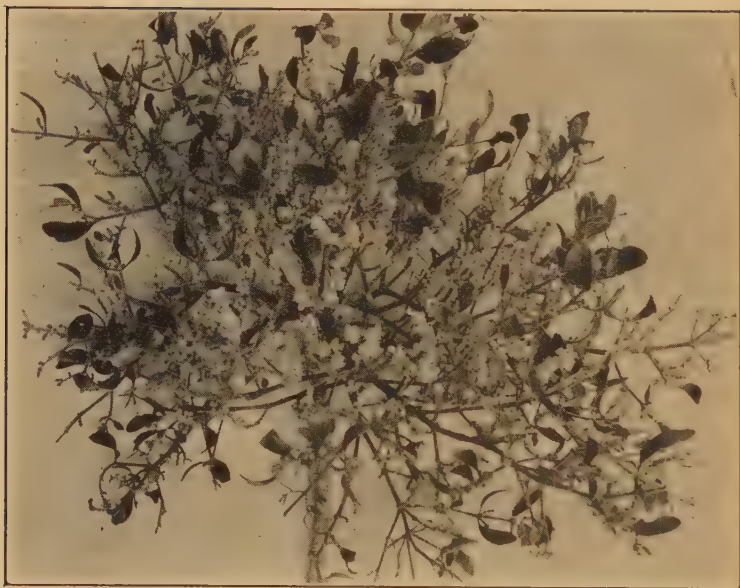
*Madrona*—The Madrona or Arbuté tree is common to the Pacific Coast. It is very desirable for ornamental planting. The smooth red bark, evergreen, leathery leaves and large panicles of flowers offer a combination of pleasing features which extend throughout the year. Even the fruits add to the decorative value of these trees for lawns or parks. The berries attract such birds as thrushes, while large numbers of humming birds visit the flowers for nectar.

*Manzanita*—Among the characteristic shrubs of California are the Manzanitas—evergreens with crooked branches. In company with other low-growing shrubs they form thickets of chaparral which are attractive to the birds for both shelter and food. They are much cultivated for their evergreen foliage and for the flowers and fruit. The Bearberry is a trailing species of this group commonly found on rocky and sandy banks in northern and eastern America.

The fruit of the Bearberry furnishes a food supply throughout the year which is especially attractive to quail and grouse. The varied thrush and the hermit thrush, neither of which forages far from cover, are commonly found feeding among the Manzanita thickets. A long list of birds common to the Pacific Coast, including band-tailed pigeon, mountain quail, California purple finch, Townsend solitaire, California thrasher and western robin eat the berries.

*Maple*—The Maple trees are too well known in every part of America to require special mention here. They are highly desirable as shade trees, as well as for windbreaks or shelter belts. It is interesting to note that the Calaveras warbler is found commonly feeding among the branches of the Maples. The cardinal grosbeak eats the seeds and the rose-breasted grosbeak eats the buds. Although the humming birds build nests in a variety of trees, they select Oaks, Pines and Maples more frequently.

*Mistletoe*—The Mistletoe, which is a parasite on several species of trees in the warmer portions of America, produces berries in great abundance. These berries hang throughout the year. Among the many birds which eat them may be mentioned cedar waxwing and mocking bird, which are common to a wide range of territory. The Townsend solitaire, the hermit thrush and the prairie hen also feed upon them. In some California localities the Mistletoe berries furnish the principal Winter food of the western bluebird.



The Mistletoe produces berries in great abundance which hang on throughout the year

*Mountain Ash*—The Mountain Ash is a beautiful tree, hardy and well adapted to withstand cold Winters and to thrive on rocky soil. The bright berries hang for a long period and serve the birds at seasons when food would otherwise be scarce. The catbird, robin, white-throated sparrow, wood thrush, red-headed woodpecker, cedar wax-wing, several grosbeaks and numerous others eat the fruit.

*Mountain Lilac*—There are several species of *Ceanothus* common to the Pacific Coast, which are known as Mountain Lilac, Deerbrush, Buckbrush, etc. They are flowering shrubs well worthy of cultivation, but many of them are not hardy except in mild climates. Because of the dense growth, several of them are attractive to many birds as nesting sites. The northern brown towhee, the black-headed grosbeak, lazuli bunting and yellow warbler commonly nest in Mountain Lilacs. The ash-throated flycatcher is attracted to the flowers of Deerbrush, *C. integerrimus*, for insects. Several birds such as mountain quail, California thrasher and linnet eat the fruit. The green-tailed towhee commonly nests in the Snowbrush bushes.



*Mulberry*—If one wishes to attract birds and has room for only one evergreen and one fruit tree, the Red Cedar should be the evergreen and the Mulberry the fruit tree. While the fruiting period of the Mulberry is short, large numbers of birds flock to the trees when the fruit is ripe. It is interesting to observe the constant flight to and from the trees by the hungry songsters. The trees fruit so abundantly that there is ample food for many of them. More than fifty species of birds eat the berries and to list them is merely to catalogue all the fruit-eating species and several which seldom eat fruit, such as vireos, song sparrows and yellow-billed cuckoos. The vireos and cuckoos depend mostly upon insects for food, while the song sparrow feeds upon weed seeds.

*Oak*—The Oaks compose a large group, some of which are common to nearly all parts of America. Many birds are associated with the Oaks, visiting them for food and nesting sites. Acorns furnish the principal food of the band-tailed pigeon of the west, the California jay, the California woodpecker and also of the common bluejay of the east. The pine siskin eats the tender buds; the rose-breasted grosbeak eats the flowers and the galls; the western warbling vireo lives mostly among Oak trees, feeding upon the insects which seek shelter in the foliage. The Hutton vireo is seldom found except among the Oaks. The common wood pewee of the East, while not depending exclusively upon the Oaks, nests among the branches and feeds near. Several warblers feed commonly upon insects among the branches. The mocking bird seems to love the scattered trees almost as well as the orchards.

The plain titmouse of California keeps mostly to the Oaks in foraging. The California bushtit is partial to the Oak where it examines the leaves with great care in search of insect food. It also places its nest in an Oak tree. The western gnatcatcher, and the blue-gray gnatcatcher of the East are partial to Oaks as nesting sites. Many other birds eat acorns at times, as do the bobwhite, California quail, ruffed grouse and cardinal.

*Peach, Pear, etc.*—The orchard trees are all attractive to the birds as nesting sites. Vireos, warblers, etc., forage among the branches and a few birds eat the fruit to a limited extent. The fox sparrow eats the buds and thus does some natural pruning, which in most cases seems to be beneficial to the trees.

*Peppertree*—The Peppertree is a well-known ornamental on lawns and in parks in California. The fruits are eaten by many birds including robin, bluebird, russet-back thrush, olive-back thrush, hermit thrush, woodpeckers, etc.



*Persimmon*—The Persimmon is a desirable tree to add to any collection. Since pistillate and staminate blossoms occur on separate trees it is necessary to plant in groups to insure fruiting. Several birds are attracted to the fruit.

*Pine*—There are several species of birds which are to be found only among the Pines. Several more are limited to the vicinity of conifers, but seemingly do not prefer any particular kind, nesting as freely in Spruce or Fir.

To attract such birds, groups of conifers must be provided, and, in some cases, they come only where there are groves of these trees.



Several species of birds live in close association with Oak trees

Among the long list of birds which prefer Pines as nesting places may be mentioned purple finch, crossbill, blue-front jay, pine siskin, myrtle warbler, ruby-crowned kinglet, magnolia warbler, blackburnian warbler, yellow-throated warbler, and the pine warbler, which associates so closely with Pines as to be seldom found elsewhere.

In California, the pinon jay is a close associate of the Pinon Pine, the seeds of which furnish it with food throughout the year. The Clarke nutcracker of the West depends largely upon the seeds of Pines for food. The Pine siskin eats the seeds and tender needle buds, while Audubon and hermit warblers feed mostly upon insects found on the foliage. The mountain quail seek the fallen seed under these trees. Numerous others eat the seeds. Many birds use the Pines for roosting places and shelter from storms.

*Raspberry*—A thicket of Raspberry bushes in a corner of the garden or along the border of a grove will prove a welcome attraction to many feathered visitors. When untrimmed and uncultivated, Raspberries make a tangle which serves for a hiding and nesting place, as well as a source of food when the berries are ripe. Nearly all the common fruit-eating birds like Raspberries, as do several kinds which are habitually dependent upon weed seeds or insects.

*Rose*—No garden is complete without Roses and every collection of these flowers should include some of the varieties whose fruit hangs for an indefinite period. Rose hips furnish food to a variety of birds. Such contrasts as bluebirds and bobwhites find a common interest in these fruits. The prairie hen depends upon the wild Roses for more than ten per cent of her food. Ruffed grouse, cardinal, vireos and thrushes all come to the Rose for food. Brier Roses are among the best of the ornamentals to include in a bird garden.

*Sassafras*—The Sassafras is a desirable tree which might well be more generally grown for ornamental purposes. It is difficult to transplant on account of its long tap-root, but once established it will thrive on light and sterile soils. The foliage is a sufficient attraction with its light green color, in Autumn turning to orange or red in many shades. The fruit is eaten by numerous birds, some of which seldom eat the commoner fruits.

*Serviceberry*—See Juneberry.

*Shadbush*—See Juneberry.

*Snowberry*—The Snowberry is coming into quite common use for grouping, wherever a low growing bush is desired. It is hardy, stands dry weather and neglect, and is especially attractive in Winter because of the abundant white berries which hang for months. Twenty-five or

more species of birds are known to eat the fruits. It is an especially valuable source of Winter food.

*Snowbrush*—See Mountain-lilac.

*Sumac*—The genus *Rhus* contains more than twenty species commonly grown as ornamentals. Some are adapted to almost any condition of soil and climate to be found in America. The compound leaves are attractive at all seasons, but especially in Autumn when the foliage assumes the most brilliant tints. In most species the flowers are unimportant, but some are followed by small fruits in large clusters which are of a bright red color. These remain over Winter, thus offering a pleasing ornamental effect, while providing food in abundance for the birds. Nearly a hundred different species of birds are known to feed upon the berries of one or another of the Sumacs. Grown in clumps, they furnish ideal nesting sites for some of the shyer species, which seek the seclusion of thickets in which to rear their young. Sumacs furnish ideal shrubs for mass planting on dry slopes and barren grounds, as well as in more favorable situations.

*Sunflower*—While Sunflowers are annuals and require replanting each season, they are well worthy the attention of every nature lover. The tall stalks, the bright yellow flowers, turning their faces to the sun,

and the abundant yield of seed offer a worth while combination. If the seed are left for the birds to harvest, they will serve an added purpose, since the gardener will have the joy of observing the activities of the songsters as they help themselves.



The flowers of the Trumpet creeper are attractive to humming birds

*Toyonberry* or *Christmas-berry*—This shrub, also known as California Holly is common along the streams and mountain sides of California where it blooms in June and July. It has white flowers and bright red berries which ripen in late Autumn. It is much used for holiday decoration on the Pacific Coast. The berries are attractive to the birds; such

species as band-tailed pigeon, hermit thrush, and varied thrush eat the fruit.

A related species from China is hardy as far north as the New England States, but it is said that the berries are not often eaten by birds.

*Trumpetcreeper*—The Trumpetcreepers are deciduous climbing vines, clinging to supports by aerial rootlets. The large, orange-colored, trumpet-shaped flowers appear late in Summer, when they attract the humming birds. Cardinals and other seclusive birds nest in the dense masses of vines which provide safe hiding places. The bobwhite and a few other birds eat the seeds.

*Viburnum*—There are more than a hundred species of Viburnums, many of which are ornamental shrubs widely grown. The Blackhaw, the Nannyberry, Arrowwood and other common species of Viburnums commonly cultivated, attract a long list of birds, ranging from the bobwhite and ruffed grouse to the white-throated sparrow, vireos and thrushes.

*Virginia Creeper* or *Woodbine*—Among the vines, few are more widely adaptable than the Virginia Creeper. It is hardy, rapid growing, and persistent. The leaves are brilliant in Autumn, but fall soon after the coming of heavy frosts. The berries are eaten by numerous birds, and when well grown, the dense vines furnish good nesting sites.

*Willow*—Willow trees attract fewer birds than others, yet some birds are closely associated with them. The California least vireo is found feeding principally among the Willows. The ruffed grouse feeds extensively upon Willow buds. Several of the smaller insect-feeding birds forage in the tops of these trees. Since it does not yield an edible fruit, a Willow is attractive only to those who seek it for such insects as live among its leaves and by those which would nest among its branches.



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